

Healthy People Living in Healthy Communities



SC DHEC 2003

A Report on the Health of South Carolina's People and Environment

About this book

The title of this book reflects the S.C. Department of Health and Environmental Control's long-term vision for the future of South Carolina, healthy people living in healthy communities. Each chapter addresses a long-term goal from the agency's Strategic Plan. The goals reflect our role as the state's public health and environmental agency in carrying out the three core functions of public health: assessment, policy development and assurance. The goals also build on national efforts in public health such as Healthy People 2010. These goals are statements of long-term changes that will move us toward our vision. A general appendix with more detailed data begins on page 38.)

What is Healthy People 2010?

Throughout the following sections you will see references to Healthy People 2010 objectives. These are the nation's health objectives for the first decade of the new century. These objectives are used by states, communities, organizations and others to develop health improvement programs. Healthy People 2010 builds on initiatives pursued over the past two decades. South Carolina is committed to improving the health status in South Carolina by working toward the Healthy People 2010 goals and objectives.

Para informacion en espanol, comunicarse con su departamento de salud local (vea pagina 53).

a Message from the Commissioner

This abbreviated issue of Healthy People Living in Healthy Communities 2003 updates our last year's annual report along with highlighting some of our accomplishments and challenges over 2002. Each chapter reflects an agency goal and the efforts that go toward achieving that goal. In addition, this report adds another year of data to our tracking of trends and our progress toward meeting and exceeding the national Healthy People 2010 goals.

As with all agencies statewide and health departments nationwide, 2002's economic downturn has created new challenges for public health. We were and still are operating with fewer resources, including almost 1,000 fewer employees to perform the core public health functions that are our legislative mandate. We also have assumed a new mandate: to develop and implement a system that will allow us to prevent and mitigate any public health emergency caused by a terrorist act. Our new Office of Public Health Preparedness is working with our front-line staff and a statewide partnership to meet the new challenges of our changed world.

We continue to focus on customer service, and despite lean times in 2002, we launched several health and environmental initiatives, including:

- posting and maintaining restaurant ratings on our Web site.
- developing the S.C. Children's Environmental Health Medicaid Program pilot projects, a partnership with the S.C. Department of Health and Human Services, that will target environmental hazards to children's health.
- starting the Business Recycling Assistance Program, a partnership with the S.C. Department of Commerce, that will assist companies in locating recycling and recycled product markets and waste reduction.

Successful public health activities do not occur in a vacuum. Public health is a partnership of state and local, as well as public and private, entities. Each person has a role to play in making sure the state's environment and overall health are improved and maintained. Again, this report is a mere snapshot of our ongoing public health activities in the state. I urge you to read this abbreviated report, determine where your energies can best help your communities, and never hesitate to let DHEC know how we can improve our efforts to be better stewards for the health and environment of South Carolina.

C. Earl Hunter
Commissioner

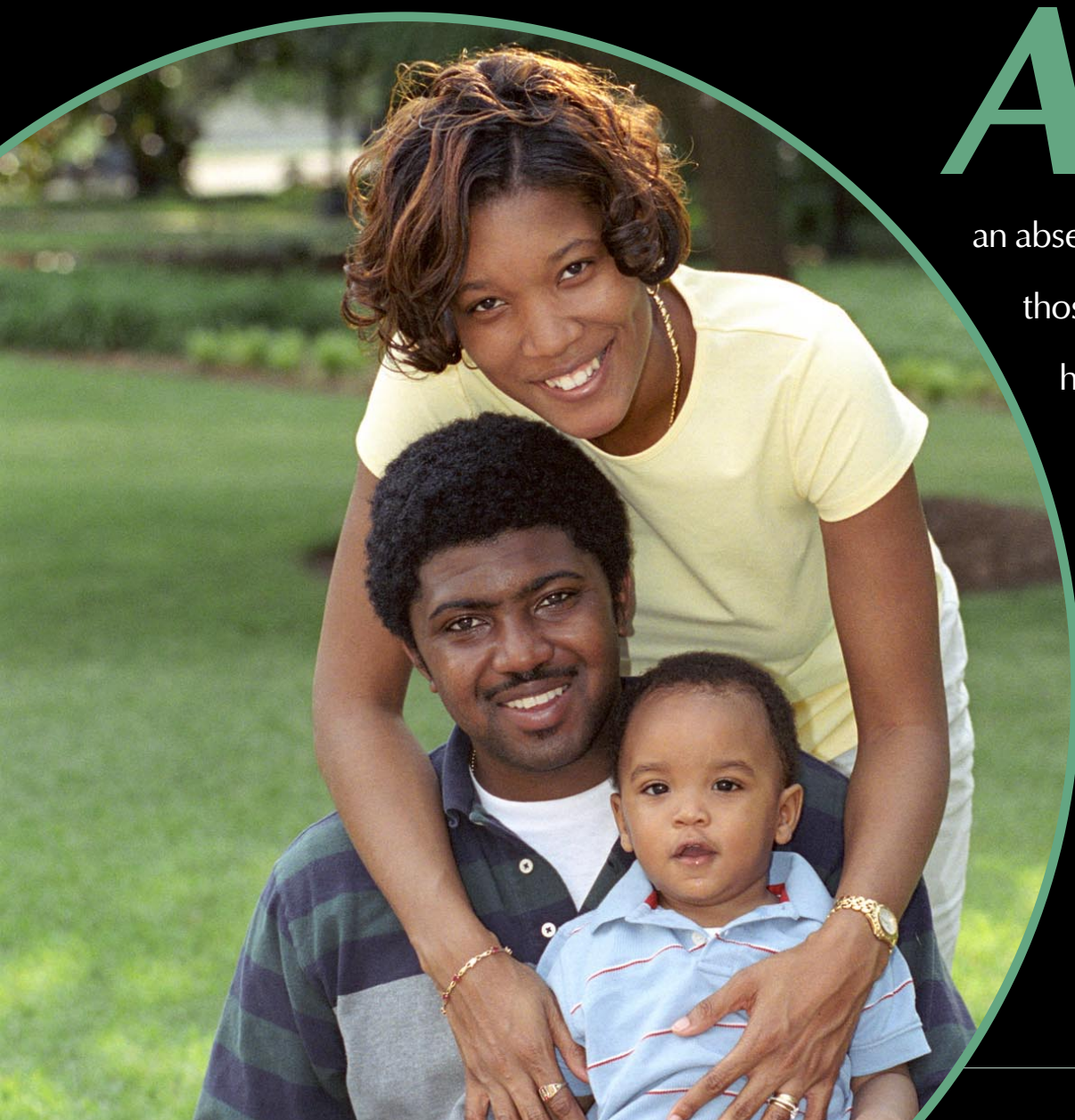
C. Earl Hunter



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Increase Local Capacity to Promote and Protect Healthy Communities



A healthy community is one that embraces the belief that health is more than merely an absence of disease; a healthy community includes those elements that enable people to maintain a high quality of life and productivity. Good health encompasses physical, emotional, social and economic well-being. Healthy families need income, transportation, shelter, education, healthy working conditions, and a safe, clean environment.

What is a healthy community?

Public health traditionally has focused health improvement efforts on personal behavior change such as encouraging people to quit smoking, eat healthy foods, and exercise. But individual health is closely linked to community health – the community and environmental conditions in which individuals live, play and work.

Behavior-related factors such as tobacco, alcohol, illegal drugs, firearms and unsafe motor vehicle use along with diet, physical activity patterns, and sexual behavior together contribute to more than half the deaths in South Carolina and to substantial amounts of disease and disability.

The physical environment (air, water, soil) can do harm, especially when individuals and communities are exposed to toxic substances, irritants, infectious agents, and physical hazards in homes, schools and work sites. The physical environment can also promote good health, for example, by ensuring clean water, clean air, safe food, and effective waste management. The social environment includes interactions with family, friends, co-workers and others in the community. It also includes components such as housing, public transportation, urban development, land use, industry and agriculture. Thus, community health is profoundly affected by the collective beliefs, attitudes and behaviors of everyone who lives in the community.

Community capacity building

A “community” is a group of people with a common interest. Many entities have an effect on and a stake in a community’s health. Thus, the health of a community is a shared responsibility. Community organization is a planned process that brings together a diverse group of individuals, groups and organizations to identify issues and concerns and to focus on comprehensive strategies and action steps for health improvement. Each group

brings resources and strengths to address and solve problems. Single voices join in a chorus that can be strong enough to effect needed and sustained policy and regulatory changes.

Partnerships can be among the most effective tools for improving the health of the public and communities. Partnerships also open new possibilities for using scarce resources more effectively, bringing the community closer together, reducing high-risk behaviors, and solving community problems. DHEC encourages and participates in many community partnerships to increase communities’ ability to improve and sustain their health. <http://www.ncl.org/cs/services/healthycommunities.html>

Local staff works for healthier communities

More than 3,000 DHEC employees live in the communities they serve throughout the state. These staff provide an array of health and environmental services:

- Twelve **Environmental Quality Control** (EQC) regional offices provide direct support services to the EQC program areas and the general public. Services include emergency response activities, environmental monitoring (Air Quality, Land and Waste Management, Water), facility inspections and evaluations, technical assistance, shellfish regulation, and a summer pool inspection program. Investigating and resolving environmental and public health issues is a priority. Staff also works closely with facility owners and operators to provide technical assistance and identify potential system problems before they present a risk to the environment or public health. In 2001, EQC staff responded to 5,899 citizen concerns.
- In DHEC’s 13 **Health Districts** and in county health departments, staff provide a variety of services including child and adult immunizations, disease detection and monitoring, nutrition and other health services counseling, home health care, and through the Environmental Health divisions provide restaurant inspections, septic tank permitting, lead poisoning and day care safety investigations, and mosquito, rabies and other vector prevention and detection.
- The **coastal management** program focuses on the eight coastal counties: Horry, Georgetown, Berkeley, Dorchester, Charleston, Colleton, Beaufort and Jasper. The program’s primary goals are to protect the quality of the coastal environment and to promote coastal zone economic and social improvement. To achieve these goals, the Office of Ocean and Coastal Resource Management (OCRM) strives to develop a rational balance between economic development and environmental conservation and promotes intergovernmental coordination and public participation in the process. OCRM operates four local offices: Charleston (the main office), Columbia, Beaufort and Myrtle Beach. Staff processes about 3,500 actions each year, certifying and/or permitting most development projects in the coastal zone. These projects include roads, bridges, malls, subdivisions, industries, stores, marinas, docks, piers, bulkheads and others.



- Operated out of Columbia, DHEC's **Health Regulations** area makes sure community health facilities and services are adequate and safe. The group licenses and certifies facilities such as nursing homes and community residential care facilities; regulates, licenses and inspects those who use sources of electronically produced radiation (X-rays); certifies the need for new and expanding facilities; and develops and enforces standards and regulations necessary to improve emergency medical services in South Carolina.



<http://www.scdhec.net>

West Nile Virus enters South Carolina communities

In 2002, the first positive cases of West Nile Virus emerged in South Carolina. West Nile Virus is caught through the bite of a mosquito that has the virus. Mosquitoes get the virus by feeding on birds that have the virus. The mosquitoes then give the virus to humans and animals when they bite them. Through December 2002, DHEC staff collected and tested the following for the virus:

Humans: 352; one positive

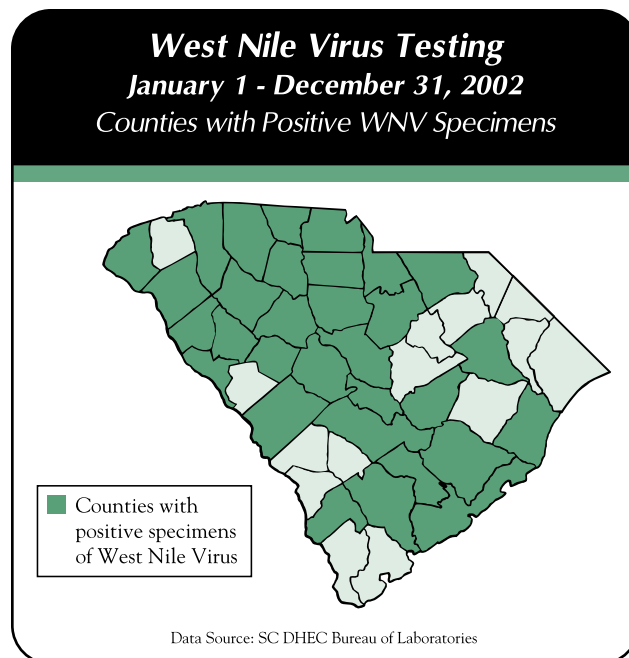
Birds: 819; 52 positive

Mosquitoes: 49,630

Horses: 42; 25 positive

Other: Three dogs, two cats, one deer, one raccoon and one pig; no positives

<http://www.scdhec.net/HS/westnile/index.htm>



Trauma centers declining

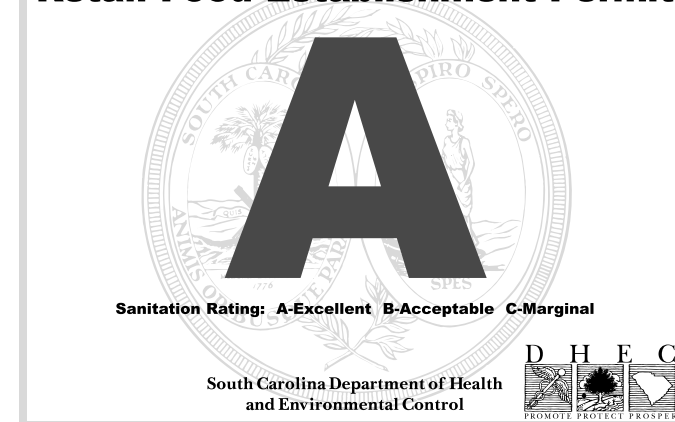
Trauma centers provide highly skilled care for critically injured and ill residents. Appropriate trauma care can mean the difference between life and death for injured patients. This level of care is expensive for community hospitals to provide. Before 1990, there were fewer than five designated trauma centers in South Carolina. The number steadily increased to 24 in 2000. However, in 2002, a Level III trauma center dropped out and four others reduced or eliminated services, indicating that providing this voluntary service has become a hardship for local providers of health care services. Four of the remaining centers are Level I (regional), two are Level II (area), and 17 are Level III (community). Yet, there has been a continuing increase in trauma center patients. Between 1995 and 1999, trauma patients increased by more than 50 percent. DHEC has formed a stakeholders group to draft legislation that would protect and fund an effective trauma system for the state.

<http://www.scdhec.net/hr/ems>

DHEC oversees safe dining

South Carolina has almost 16,000 food service facilities, an increase of almost 2,000 since 1993. The number of sufficiently trained food service inspectors has not kept pace with this growth. South Carolina currently falls below the U.S. Food

Retail Food Establishment Permit

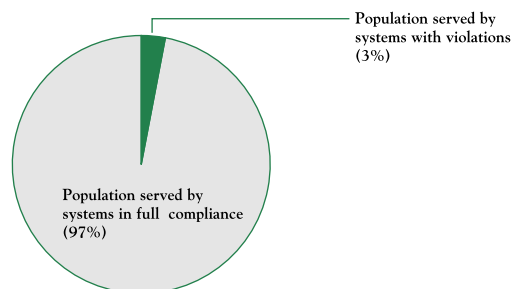


and Drug Administration's recommended four unannounced inspections per year per facility, averaging only 2.15 per year. Based on historical data, facilities in the state require an average follow-up rate of 50 percent of unannounced inspections; South Carolina currently averages only 1.09 follow-ups per year. DHEC is seeking funding for an additional 26 food inspectors to bring this service closer to nationally recommended levels. In 2002, DHEC also began posting restaurant grades on the Web at <http://www.scdhec.net/foodscore> for public review. Additionally, the Bureau of Environmental Health's Food Protection Division conducts workshops in communities to assist owners and operators of food service operations in understanding the state's food safety laws and to better protect the public's health with food safety practices in their own local facilities. In 2002, the bureau trained 1,462 food service workers.

Safe drinking water a community priority

Safe drinking water is vital to human health. Drinking water comes from the environment, so pollutants that enter water can end up in drinking water sources. This source water must be cleaned to health-based standards by drinking water treatment plants. About 97 percent of South Carolina's drinking water met all health standards in 2001. Only 55 systems serving 108,473

S.C. Population Served by Community Water Systems in Full Compliance with All Health-Based Standards 2001



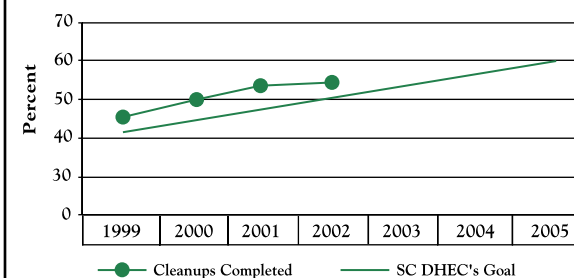
Data Source: SC DHEC data in EPA database SDWIS/FED

people out of 684 systems serving 3.5 million people had water quality violations. Most of these violations were from naturally occurring radiological elements or were non-acute bacteriological contamination. <http://www.scdhec.net/water/html/dwater.html>

Leaking tanks plague communities

Leaking underground storage tanks (USTs) are the primary cause of groundwater contamination. Compounds from petroleum products escaping from these tanks can contaminate aquifers used for drinking water. By maintaining an effective inspection program, DHEC has reduced the number of new releases, allowing available resources to go toward assessing and cleaning up existing cases. Currently, more than 93 percent of all confirmed releases are or have been assessed, and more than 280 cases are undergoing active groundwater contamination cleanup. Of the more than 8,100 confirmed releases, 4,300 have been addressed. DHEC has received a \$100,000 grant to assess and clean up petroleum contamination at six former UST sites clustered around a Greenville intersection. The funds were awarded as one of 40 pilot projects across the nation under the U.S. Environmental Protection Agency's UST Field Initiative. Funds are being used for ground-penetrating radar studies to locate tanks and for environmental assessment, cleanup and monitoring activities. <http://www.scdhec.net/eqc/ust/html/usthome.html>

UST Cleanup Completions vs Goals 1999-2005



Data Source: SC DHEC UST Database

Ongoing challenges, new approaches

Many forces have worked over the past two years to bring the state's leaders together to develop and implement a statewide plan for addressing cancer in South Carolina. **The South Carolina Cancer Alliance (SCCA)** is the product of that vision. A coordinating council of 40 elected and appointed representatives provides leadership for the SCCA. With support from more than 300 individuals and organizations, major activities are focused on coordination, collaboration, education and research. Five task forces will accomplish the primary work of the SCCA: Advocacy and Policy, Early Detection, Patient Care, Prevention, and Research. <http://www.scdhec.net/cancer/alliance.htm>

The HIV Prevention Collaborations were created in 1995 in response to a need identified by the Statewide HIV Prevention Community Planning Group (CPG) to increase the ability of local organizations to conduct HIV prevention activities. In an HIV collaboration, volunteer prevention providers agree to work together in planning and implementing a response to the HIV epidemic in each public health district. Today there are 11 collaborations covering all but two counties in the state. <http://www.scdhec.net/HS/diseasecont/stdwk/html/stdindex.htm>

The S.C. Children's Environmental Health Medicaid

Program is a partnership between DHEC and the S.C. Department of Health and Human Services to address environmental factors that harm children's health. Pilot projects will occur in Aiken, Allendale, Bamberg, Barnwell, Calhoun, Orangeburg and Richland counties. Proposed target areas include asthma/asthma triggers, secondhand smoke, lead exposure/poisoning, and unsafe drinking water/unsanitary sewage disposal. Primary care physicians and public health staff will administer in-office questionnaires and identify Medicaid eligible children and families who could benefit from expanded in-home assessments, blood lead level testing (from ages 2 to 6), and education on asthma management and smoking cessation.



Businesses help reduce waste

Through a partnership, a free, non-regulatory comprehensive technical assistance program was launched in 2002 to assist businesses, industry, organizations and state agencies interested in reducing costs associated with solid waste management. The **Business Recycling Assistance Program**, a partnership between the S.C. Department of Health and Environmental Control and the S.C. Department of Commerce (DOC), offers assistance on waste reduction, buying recycled products, market development and pollution prevention. While saving money, businesses also are learning to conserve natural resources and reduce the amount of material they landfill. In addition to DHEC's Office of Solid Waste Reduction and Recycling, the partnership includes DOC's Recycling Market Development Advisory Council, housed at the S.C. Department of Commerce, and DHEC's **Center for Waste Minimization**, which consults with businesses and industries on how to reduce other wastes. For more information on DHEC waste reduction programs, call 1-800-768-7348.

The Catawba AIDS Prevention Network in collaboration with DHEC's Catawba Public Health District developed the *Laundromat Lunch N Learn Program* that targets low-income, at-risk women of childbearing age in Chester, Lancaster and York counties. The multi-faceted "women's health" program is conducted within the community in which the women live to avoid the need for transportation. Childcare and lunch are provided along with other incentives. The goal is to raise awareness of personal risk among heterosexual women and provide them with the skills and resources necessary to practice safer sex.

Emergency Preparedness

The possibility of terrorist events is a public health threat. DHEC is providing leadership in implementing the 2002 Homeland Security Act and in 2002 created the Office of Public Health Preparedness. Funding from the federal government is allowing DHEC to plan for the rapid deployment of public health resources to respond to an outbreak of disease or other disaster. Preparedness planning activities include dedicating positions for bioterrorism surveillance, training and outbreak response; enhancing laboratory capacity for rapid identification of potential bioterrorist agents; building collaborations with other agencies toward statewide preparedness; and assisting health care facilities regarding their plans for rapid notification and response. No funding has been made available to address chemical and radiological emergencies (except for a routine emergency management grant to address the U.S. Department of Energy's Savannah River Site).

Additional Resources

Main DHEC telephone number
(803) 898-3432

DHEC Emergency Medical Services
<http://www.scdhec.net/hr/ems>

DHEC West Nile information
<http://www.scdhec.net/HS/westnile/index.htm>

DHEC Restaurant Inspections
<http://www.scdhec.net/foodscore/>

DHEC Office of Solid Waste Reduction and Recycling
<http://www.scdhec.net/lwm/html/solid.html>

DHEC STD/HIV Prevention Program
<http://www.scdhec.net/HS/diseasecont/stdwk/html/stdindex.htm>

National Healthy Communities programs
<http://www.ncl.org/cs/services/healthycommunities.html>

S.C. Cancer Alliance
<http://www.scdhec.net/cancer/alliance.htm>

Safe Drinking Water
<http://www.scdhec.net/water/html/dwater.html>

Underground Storage Tanks
<http://www.scdhec.net/eqc/ust/html/usthome.html>



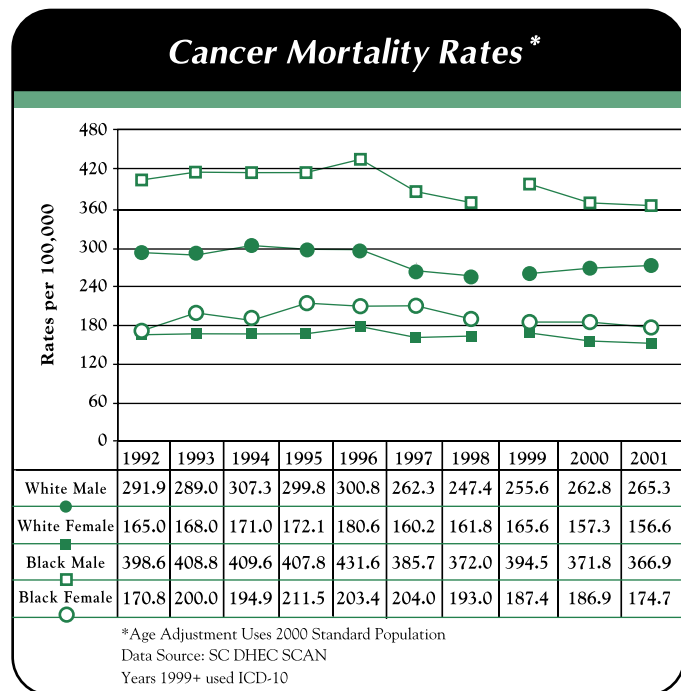
About 70 DHEC Environmental Health staff conduct inspections at least once a year at the state's 15,700 restaurants and other food service facilities.

Improve Health for All and Eliminate Health Disparities



Improving the health of South Carolinians by preventing and controlling disease improves everyone's quality of life. South Carolina lags behind the nation in overall health status. However, the state has witnessed improvements in health status for some chronic health conditions within the past several years.

Improvements in chronic conditions and their risk factors



- **Heart disease** death rates for the state have decreased by one-third since 1995 (350.6 deaths per 100,000 population in 1995 compared to 233.7 deaths per 100,000 population in 2001).
- Although South Carolina is fifth in the nation for **stroke** deaths, there has been a 32 percent decrease in stroke death rates in the state (102.4 deaths per 100,000 population in 1996 compared to 69.6 deaths per 100,000 population in 2001).
- South Carolina's **infant death** rate, which began to increase in 1998, has since declined by 6 percent (9.5 deaths per 1,000 live births in 1998 to 8.9 deaths per 1,000 live births in 2001).
- **Smoking**, a major contributor to many chronic health conditions, has decreased in the state. Between 1985 and

2000, the percentage of current smokers in South Carolina dropped by 14 percent (30.3 percent in 1985 to 26 percent in 2001).

- **Breast cancer** death rates have decreased from 33.7 deaths per 100,000 population in 1995 to 14.6 deaths per 100,000 population in 2001.



Access to health care improving

People with health insurance coverage are more likely to use health care services. In South Carolina the number of uninsured people has decreased by 21 percent in the past decade (from 19 percent in 1991 to 15 percent in 2000).

Improvements in preventive measures

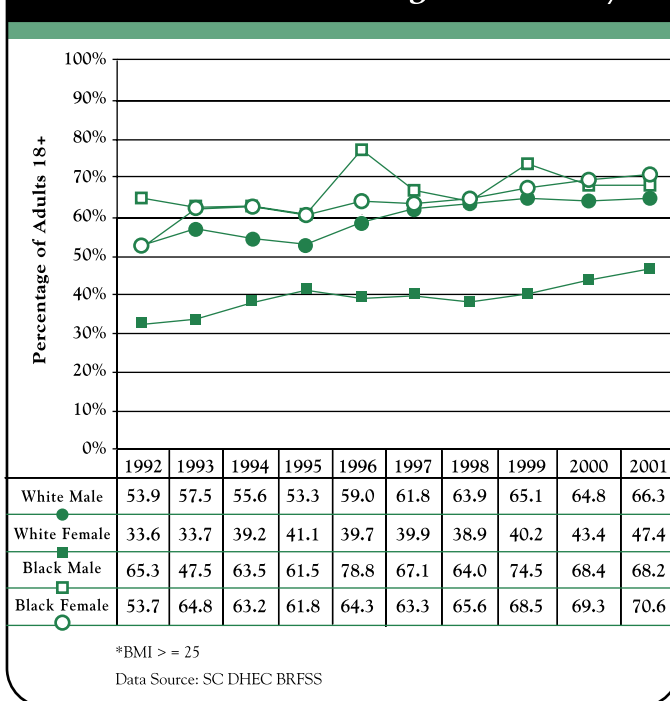
- **Flu and pneumonia** combined are the eighth leading cause of death in the state. Vaccinations can prevent some deaths. The number of people receiving flu vaccinations annually has more than doubled from about 15 percent in 1995 to 34 percent in 2001.
- In the past decade the proportion of women 35 and over having had a **mammogram** in the past year has increased by 35 percent (from 43 percent in 1990 to 58 percent in 2000).

We're overweight

In 2001, more than 37 percent of South Carolinians were overweight, and approximately 22 percent were obese. The 1999 report *Good Health: It's Your Move*, produced for DHEC by the University of South Carolina Prevention Research Center, reported that a lack of physical activity in South Carolina caused an estimated 21 percent of all heart disease, 21 percent of all cases of high blood pressure, 25 percent of all cases of colon cancer, and 40 percent of all diabetes cases. Compared to nationwide statistics, fewer South Carolinians are regularly active, more are sedentary, and more are at risk for health problems related to lack of exercise (regular and sustained physical activity). DHEC works with the Governor's Council on Physical Fitness to plan and coordinate activities with state and local partners



Prevalence of Overweight & Obesity*



to develop and maintain environmental changes that will promote physical activity among all South Carolinians.

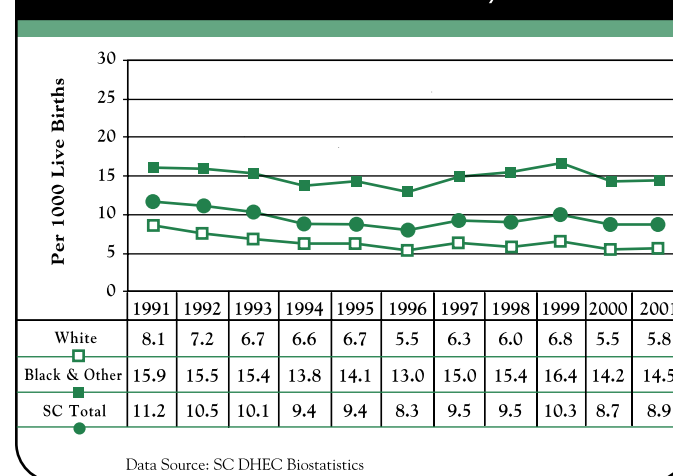
<http://www.sph.sc.edu/prevent/pareport/index.htm>

Racial and ethnic health disparities

Health status varies considerably by race and ethnicity. In general, minority populations are more likely than whites to experience complications, hospitalizations and premature death from diseases. While the overall health status for the state shows signs of improvements, racial and ethnic minority populations continue to shoulder a disproportionate share of disease burden. For example:

- **Prostate cancer** death rates for African-American men are three times that of white men.
- African-American women are nearly twice as likely to die of **breast cancer** than white women.

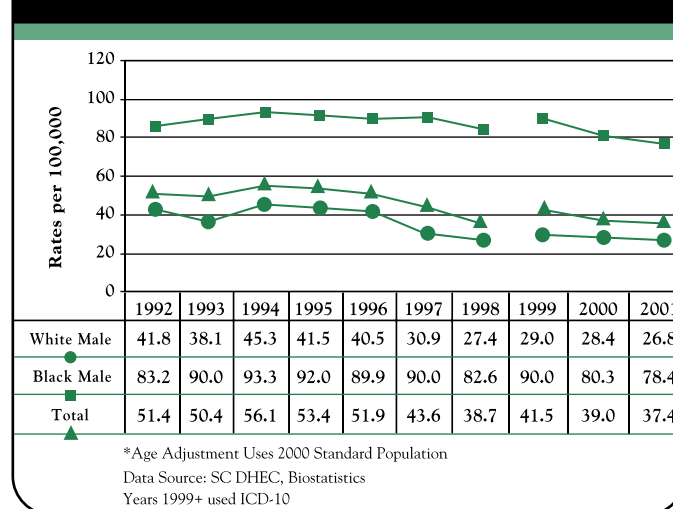
S.C. Infant Death Rates by Race



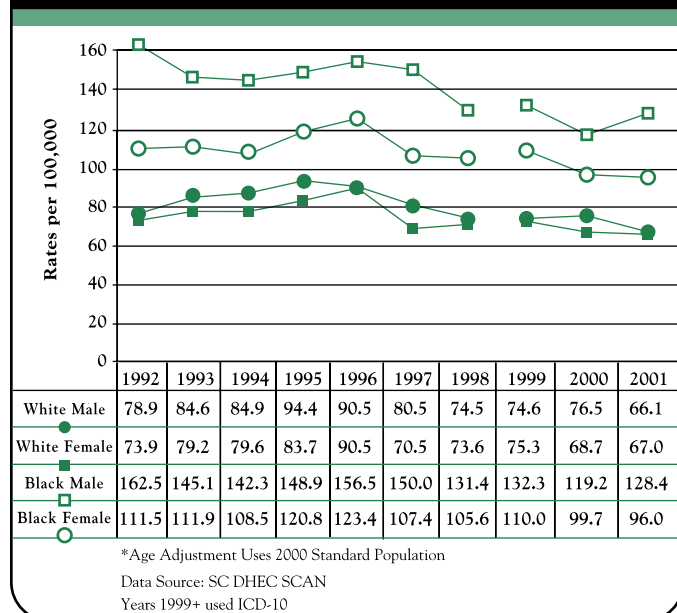
- In 2001, minority **infants** were 2.6 times more likely than white babies to die within their first year of life.

Eliminating health disparities as a state priority has become even more relevant because of the growing populations of racial and ethnic minorities in the state. Racial and ethnic minority populations in South Carolina have increased by more than 70 percent since 1970.

Prostate Cancer Death Rates*



Stroke Mortality Rates*



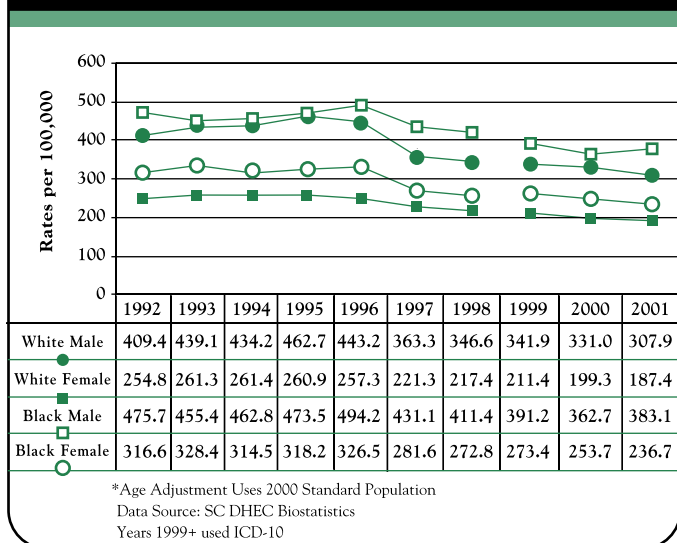
Racial and ethnic health disparities in cardiovascular diseases

Heart disease and stroke are the principle components of cardiovascular disease (CVD). In South Carolina, heart disease and stroke are the first and third leading causes of death, accounting for one-third of the deaths reported in 2001. South Carolina's overall death rates for stroke (69.6 deaths per 100,000 population) and heart disease (233.7 deaths per 100,000 population) in 2001 exceeded the Healthy People 2010 goals of no more than 48 and 166 deaths, respectively, per 100,000 population.

- Although CVD is the leading cause of death for all racial and ethnic groups, minority populations have higher rates of hospitalizations, emergency room (ER) visits and deaths than whites in the state.
- In 2001, African-Americans were almost 1.5 times more likely to die of heart disease and nearly twice as likely to die of stroke than were whites.
- Hospitalization rates for CVD were 43 percent higher for African-American women and 8 percent higher for African-American men than their white counterparts in 2000.
- ER visits are much higher for minorities than whites. The rate of ER visits among African-Americans is more than twice that of whites in South Carolina.



Heart Disease Mortality Rates*



Racial and ethnic disparities in diabetes

Since 1998, there has been a 42 percent increase in diabetes prevalence in South Carolina (from 5.7 percent of the population in 1998 to 8.1 percent of the population in 2001). While the overall diabetes death rate for the state (26.8 deaths per 100,000 population in 2001) meets the Healthy People 2010 goal (no more than 45 deaths per 100,000 population), diabetes deaths have increased in recent years. Without enhanced interventions, diabetes death rates for the state could well exceed the Healthy People 2010 goal.

- As South Carolinians experience more illness and death from diabetes, the gap in health status between racial and ethnic minorities and whites continues to widen. African-Americans in particular have a higher incidence of kidney failure, lower extremity amputations and death than any other racial group in the state.

- The percent of people diagnosed with diabetes is 2.4 times higher for African-American women and 1.7 times higher for African-American men than their white counterparts.
- In 2001, hospital charges for patients with primary diagnosis of diabetes were more than \$1 billion, with racial and ethnic minorities accounting for 50 percent of these charges.
- In 2001, diabetes death rates for racial and ethnic minorities were nearly double that of whites in South Carolina (39.2 deaths per 100,000 population versus 21.8 deaths per 100,000 population).
- Diabetes death rates for African-American women are the highest in the state and are three times the rate of white women. (For diabetes death rates by race, see page 43.)

Racial and ethnic disparities in HIV/AIDS

The number of AIDS cases diagnosed in the South continues to increase. As of June 2002, there were 6,094 people living with AIDS in South Carolina. The state's annual AIDS case rate, 17.9 per 100,000 population, is the ninth highest in the nation and nearly 18 times higher than the Healthy People 2010 goal of only one new AIDS case per 100,000 people.

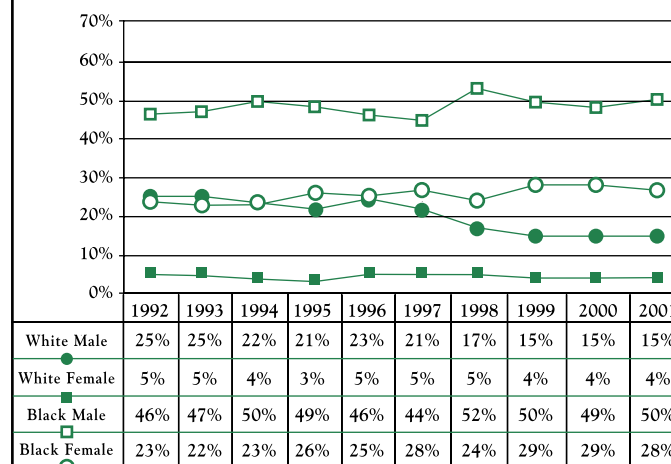
- HIV, the virus that causes AIDS, remains a real threat for young people, women and minorities. African-Americans in particular have been hardest hit by the epidemic.
- Reported HIV/AIDS rates are more than nine times higher for African-Americans than whites in South Carolina.
- While only accounting for a third of the state's total population, African-Americans represent 78 percent of HIV/AIDS cases reported in South Carolina.
- African-American men accounted for 52 percent of South Carolina's AIDS cases diagnosed in 2001.

Ongoing challenges, new approaches

The Office of Minority Health collaborated with Historically Black Colleges and Universities (HBCUs) to expand **Real Men Checkin' It Out**, a prostate cancer education and screening initiative. The expansion provided education and outreach for 207 persons and prostate cancer screenings for 267 men in 2002.

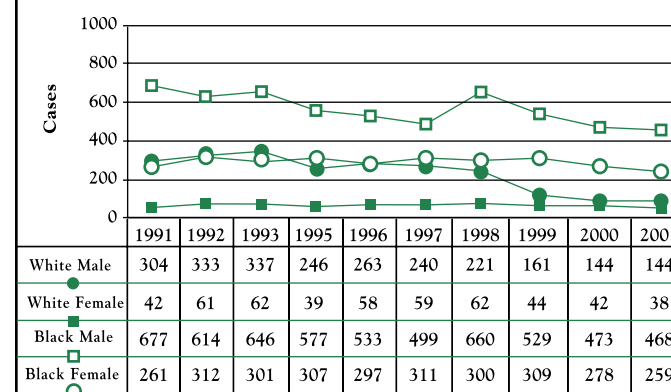
The **S.C. Minority HIV/AIDS Demonstration Project** has been renewed for an additional three years. With renewal, the project has expanded its focus to target community-based minority serving organizations (CBMSOs) and the faith community. During the new grant period, the project will establish a CBMSO training institute to provide intense organizational capacity

Percent of Total HIV Cases By Race & Gender



*AIDS cases are included in counts of HIV cases. Data are cumulative from Feb., 1986
Data Source: SC DHEC HIV/AIDS Surveillance Data, Data are Provisional

Reported Cases of HIV*



*AIDS cases are included in counts of HIV cases. Data are cumulative from February 1986
Data Source: SC DHEC HIV/AIDS Surveillance Data, Data are Provisional

building as well as coordinate community-based HIV testing training for CBMSOs. The project, through collaborative efforts, will also deliver the community-based HIV testing training to health educators who work with Hispanic migrant farm workers and other Hispanic community members.



In accordance with the S.C. General Assembly, DHEC convened the **Health Disparities Study Workgroup**, a broad-based work group representing state, public and private agencies and organizations seeking to eliminate health disparities. The group's charge was to:

- identify public and private health initiatives focused on eliminating racial and ethnic health disparities;
- identify ways to promote joint efforts among these organizations; and
- provide recommendations for the development of a State Health Improvement Plan with an emphasis on eliminating health disparities.

The work group recommended creating a state health disparities board and a database of existing initiatives, establishing a uniform definition and a system of accountability for outcomes, investing more in prevention and education, establishing opportunities for collaboration and partnerships, and implementing models of community development.

Additional resources:

DHEC's Office of Minority Health
(803) 898-3808

<http://www.scdhec.net/hs/minority/minority.htm>

DHEC's Bureau of Disease Control

<http://www.scdhec.net/HS/diseasecont/immunization>

USC School of Public Health Prevention Research Center

<http://www.sph.sc.edu/prevent/pareport/index.htm>



DHEC nurses perform well-baby checkups at county health departments throughout the state.

Assure Children and Adolescents are Healthy

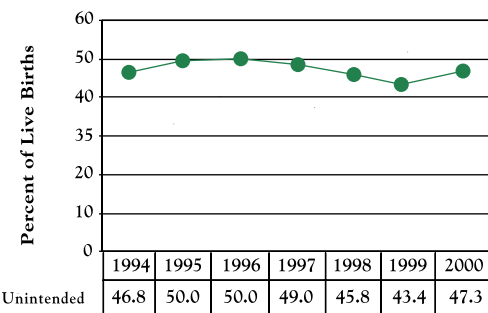


Assuring the health of our children and teens builds the foundation for future healthy adults. Health conditions affect the readiness of children to learn and grow into productive citizens. Health initiatives must encompass the range from making sure babies are born healthy to promoting healthy teen behavior. Development depends on healthy pregnancies and infancy, strong and nurturing families, skilled caregivers, supportive communities, and healthy teen behaviors.

Planning a baby best for health

Women who become pregnant when they did not want to be pregnant at all, or who did not want to become pregnant at that time, are considered to have an **unintended pregnancy**. Women who are unintentionally pregnant have a greater chance of not taking care of themselves and their child and also have a greater chance of having a baby who is not healthy at birth.

Percent of S.C. Women Giving Birth Whose Pregnancy was Unintended



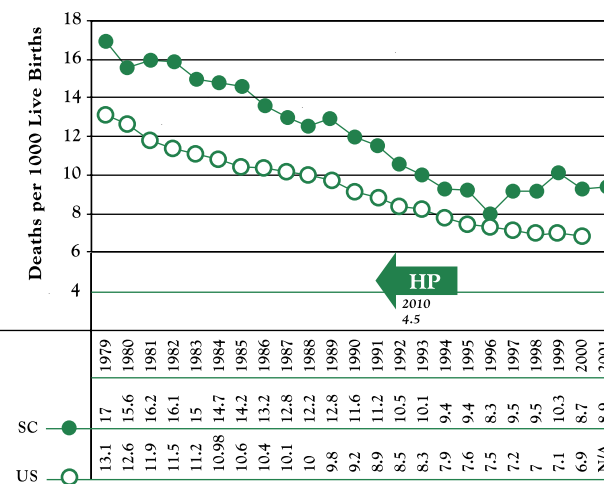
Data Source: PRAMS

South Carolina continues to be very far from the Healthy People 2010 objective for the nation of no more than 30 percent of all pregnancies to be unintended.

Early care important for pregnant women

The overall percent of pregnant women entering **prenatal care** during the first trimester in South Carolina has not improved recently in the state, nor has the gap between black and white women accessing care early changed much. In 2001, 78.5 percent of all women began care in the first trimester (83.8 percent among white women and 69 percent among black women and women of other races). The state is far from the Healthy People 2010 goal of 90 percent. (See data, page 39.)

U.S., S.C. Residents Infant Death Rates



Data Source: SC DHEC Bureau of Epidemiology

Infant death rate increases slightly

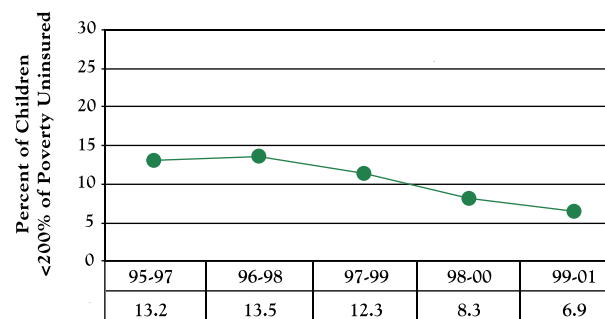
South Carolina's overall infant death rate was 8.9 deaths per 1,000 live births in 2001, a slight increase from the 8.7 rate in 2000. The gap between the white and black infant mortality rate remains very wide. In 2001, black babies were 2.5 times more likely to die than white babies in South Carolina. The infant death rate for black babies was 14.5 and 5.8 for white babies. (For additional data, see page 11.)

More children have access to health care

According to the U.S. Census Bureau's Current Population Survey, 6.9 percent of children through age 18 in South Carolina for the three-year period from 1999 through 2001 were uninsured. This percent represents a large drop from the previous three-year period (8.3). The American Academy of Pediatrics has estimated that 11.9 percent of children in the nation were uninsured in 2001. Current and pending budget cuts could affect access to care and positive health outcomes, particularly among poorer infants and children, if fewer children are insured through the Medicaid program.

<http://www.aap.org>

Percent of S.C. Children * Uninsured Birth to 19

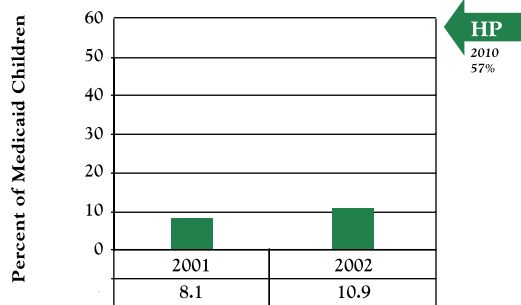


*Children Under 200% of Poverty
Data Source: CPS

Dental cavities (caries) most common childhood disease

Dental caries is an infectious disease and is the most common disease of childhood. Dental caries are preventable. The percent of children in the state who have accessed a preventive dental service in the last year has steadily improved. In 2001, 41.8 percent of children on Medicaid received a preventive dental service. Despite this improvement, South Carolina is still far from reaching the Healthy People 2010 goal of 57 percent of all children receiving preventive dental services.

S.C. Children on Medicaid Under 21 Receiving a Preventive Dental Service

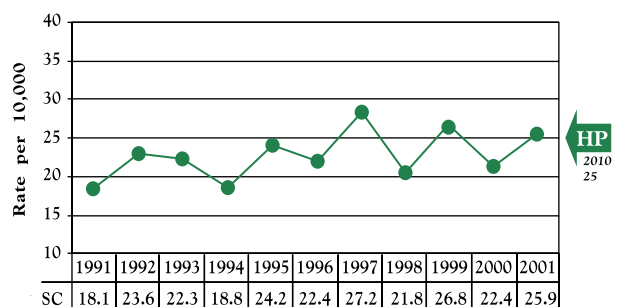


Data Source: SC Department of Health and Human Services

Asthma increasing among children

Since 1990, asthma and related conditions have been the leading causes of hospitalizations among South Carolina children under 19. In 2001, there were 2,671 hospitalizations due to asthma, costing more than \$12.5 million. This was an increase of about 5 percent over 2000. There were 10,124 emergency room visits due to asthma at a cost of almost \$7 million.

Asthma* Hospitalizations Among Children Ages Birth to 19



*Asthma as primary diagnosis

Data Source: SC Budget & Control Board (ORS)

In 2001, nonwhite children were much more likely to be hospitalized for asthma than white children, and males were more likely to be hospitalized than females. Nonwhite males had by far the highest hospitalization rate at 53.1 per 10,000, followed

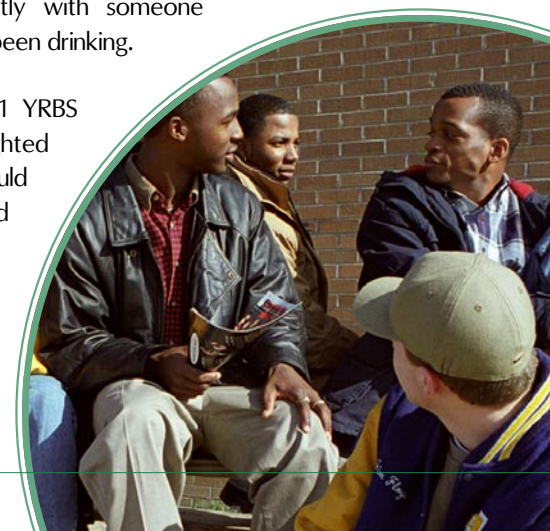
by nonwhite females at 29.1 per 10,000. The rates for whites were considerably lower: 20.2 per 10,000 white males and 12.1 per 10,000 white females. Similarly, nonwhite males visited the emergency room at a rate of 219 per 10,000, followed by nonwhite females at 13.7, white males at 56.7, and white females at 39.1 per 10,000.

Risky teen behaviors

According to the 2001 Youth Risk Behavior Survey*, a survey of public school students in grades 9-12 conducted by the S.C. Department of Education:

- 35 percent of teens were current smokers (White teens were more than twice as likely as black teens to report current smoking.);
- 44 percent were current drinkers (49 percent among whites and 36 percent among black teens);
- about 25 percent of teens reported having been binge drinking (5+ drinks at one time) at least once recently, with white teens being more than twice as likely to report this behavior (about 32 percent to about 15 percent, respectively);
- about 24 percent of teens reported current marijuana use; and
- about 34 percent reported riding in a car recently with someone who had been drinking.

***Note:** The 2001 YRBS is not a weighted sample and should not be compared to previous years of the report.



Ongoing challenges, new approaches

The S.C. Department of Health and Environmental Control in partnership with the three federally funded Healthy Start projects in South Carolina and Palmetto Bright Futures is focusing on the infant death disparity through a new campaign, **Black Infants - Better Survival** (SC BIBS). The campaign strives to reduce infant mortality among black infants through public awareness, teaching women about risk and risk reduction, and community initiatives. The success of the campaign has been enhanced with the strong partnership being developed between DHEC and the Seventh Episcopal District of the AME Church. One of the long-term goals in the Episcopal Strategic Health Plan is to reduce the infant mortality disparity in the state. For more information, visit <http://www.scdhec.net/scbibs>.

Additional resources:

CareLine (service referrals)

1-800-868-0404

Healthy infants

<http://www.scdhec.net/co/phsis/biostatistics/>

<http://www.childbirth.org>

<http://www.healthystartassoc.org>

Teen pregnancy prevention

<http://www.teenpregnancy.org>

<http://www.freeteens.org/>

<http://www.scdhec.net/hs/mch/wcs/fp.htm>

Youth Risk Behavior Survey

<http://www.cdc.gov/nccdphp/dash/yrbs/>

Prenatal care

S.C. March of Dimes Chapter

(803) 252-5200

<http://www.walkamerica.org>

<http://www.scdhec.net/hs>

Access to health care

Child Health Insurance Program, Partners for Healthy Children

1-888-549-0820.

American Academy of Pediatrics

<http://www.aap.org>

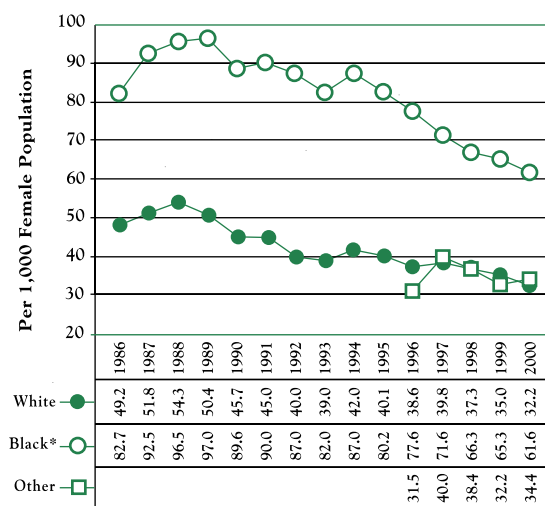
Henry J. Kaiser Family Foundation

<http://www.kff.org>



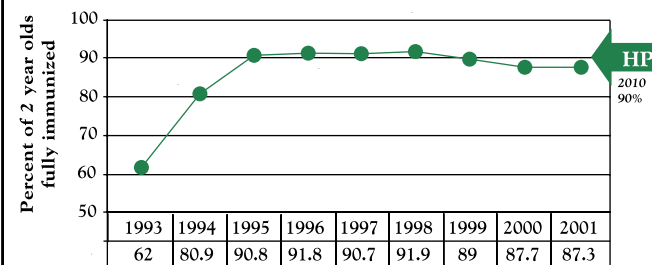
Healthy children learn better. School nurses can detect health problems that might prevent a child from reaching his educational potential.

Trends in S.C. Adolescent Pregnancy Rates by Race, Ages 15-17



* Prior to 1994-1996, Black includes black and other.
Data Source: SC DHEC Bureau of Epidemiology

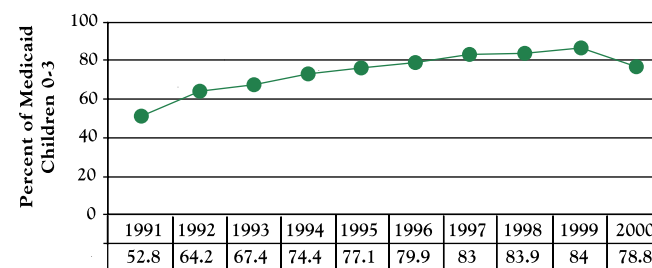
S.C. Immunization Coverage Rates* Children Age 2



4 DTP, 3 Polio, IMMR, 3 Hib

*Birth Registry Survey Division of Immunization

Percent of S.C. Children on Medicaid who Received a Primary Care Service



Data Source: S.C. Department of Health and Human Services

Assist Communities in Planning for & Responsibly Managing Growth

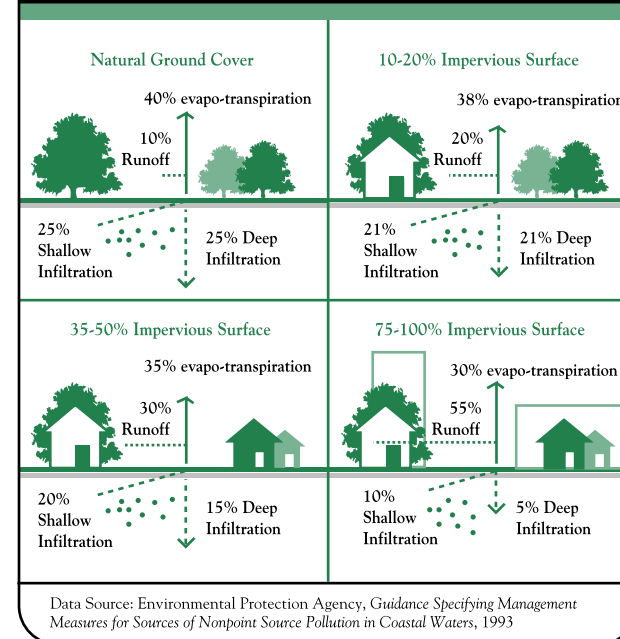
South Carolina is the 10th fastest growing state. The state is experiencing increases in the number of activities that impact the environment and our health – businesses, industries, cars and demands on public services. Our communities need workable, realistic plans to provide for stable economic development, a good quality of life and the protection of our limited natural resources. DHEC's role is to assist communities in planning for and responsibly managing their growth so that the South Carolina neighborhoods of the future are clean, healthy and safe places to live.



Population growth and our health

- Since 1970, South Carolina's population has increased by 51 percent. The state population growth for the entire first half of the century (1900-1950) was 58 percent.
- Even though South Carolina is 40th in size and 26th in total population, the state is ninth in the nation for land conversion from rural to developed, sixth in the nation when adjusted by size, and fourth in the nation when adjusted by population.
- In one Princeton University study, three-fourths of registered voters who responded believe they or a close family member have lived in a community where air or water pollution, waste, pesticides or other environmental issues were a problem.
- In national estimates, South Carolina has the highest pedestrian fatality rate and the third highest rate for bicycle fatalities.
- As our communities grow outward from central towns, so do we: Walking as a mode of transportation and recreation has dropped 42 percent in the past 20 years, while 40 percent of Americans have grown heavier.
- Asthma is the leading cause of hospitalizations among children under 19, and the rate has risen from 18.1 percent per 10,000 in 1991 to 25.9 percent in 2001.
- The National Academy of Sciences has concluded that 60,000 American babies may be born each year with neurological damage caused by mercury, the most compelling source of which is as a byproduct of coal-burning plant emissions.

How Development Affects Stormwater Runoff



Health

What happens when we use land unwisely?

Water

Poor land use impacts water quality. Growth brings more paved surfaces, which form a barrier that prevents stormwater from absorbing into the ground or filtering before it reaches a water body. Runoff water from rainstorms and irrigation carries pollutants to the nearest water body. About 60 percent of South Carolinians get their drinking water from these lakes and rivers. Good stormwater management can protect drinking water sources from runoff pollution.



As we drive more miles, low-level ozone is a concern for citizens with chronic respiratory ailments. Automobile emissions combine with air to create pollutants. Additionally, more cars on the road create safety issues. South Carolina is first in the nation in the number of deaths among children who walk or bike near roadways, according to a *Mean Streets 2000* study by the Surface Transportation Policy Project. Growth planning should include safer streets, sidewalks and crosswalks, and areas for safe bicycling. Also, developments without safe places to walk don't promote exercise that could reduce chronic health problems such as obesity, diabetes and poor cardiovascular health. <http://www.transact.org/>

Total Maximum Daily Load (TMDL) in the Charleston Harbor System

TMDLs define the maximum amount of a pollutant allowed to be discharged to a water body and not violate water quality standards. DHEC has developed a TMDL for oxygen-demanding substances for the Cooper River/Charleston Harbor system. Current computer models show a 70 percent cut below currently permitted amounts is needed. A phased approach is proposed with a 60 percent cut to the next five-year permit issued to dischargers and a final cut to 70 percent below current permit limits. During phase one, the local council of governments is proposing additional studies to better define reductions needed to meet dissolved oxygen criteria. For more information, contact Wade Cantrell at (803) 898-3548, or cantrewm@dhec.sc.gov. For general TMDL information, contact Kathy Stecker at (803) 898-4011, or steckemk@dhec.sc.gov.

What is a Class 1 Increment Area?

Just like the designation “Outstanding Resource Water” for South Carolina’s special water bodies, there is a federal designation for special areas where a high level of air quality protection is needed. The Clean Air Act refers to these areas as Class I areas. The Cape Romain National Wildlife Refuge is the only South Carolina Class I area. Its current air quality cannot be degraded. Much like a TMDL used for water, the air emissions (primarily sulfur dioxide, which causes “acid rain”) within about 50 miles of Cape Romain are reviewed for potential impact. When the maximum amount (increment) has been allowed for release by facilities, no further waste emissions can be permitted. This limitation will have serious economic consequences on up to half of our state, since air pollution is not confined to specific boundaries. For more information, contact John Hursey at (803) 898-4286, hurseyje@dhec.sc.gov.

Brownfields ‘recycle’ used land

A Brownfield is “an abandoned, idled or underused industrial or commercial facility, where expansion or redevelopment has been complicated by real or perceived environmental contamination.”

In May 1997, the Town of Cowpens in Spartanburg County was awarded a Brownfields Demonstration Assessment Pilot from the U.S. Environmental Protection Agency, allowing the town to perform an assessment of the environmental contamination at the former Health-tex facility. Cowpens was also recognized nationally as the smallest municipality to receive this funding. Citizens and elected officials have joined DHEC efforts to ensure that the site is cleaned up. DHEC environmental staff keeps the community informed and seeks input on remedial actions at the site. DHEC’s Office of Environmental Community Health is working with local residents on their health concerns.

The effort is an example of the spirit of Brownfields revitalizations. Since inception of the program, South Carolina has had eight other communities working toward Brownfield redevelopment goals. DHEC has secured \$4.35 million for a Brownfields Cleanup Revolving Loan Fund to help finance some community activities. The Catawba Regional Council of Governments (Lancaster, Chester, York) and the city of Laurens this year each received \$200,000 grants to begin environmental assessments.



For information on Brownfields, contact Karen Sprayberry, spraybkj@dhec.sc.gov, at (803) 896-4252 or EQC’s Community Liaison, Nancy Whittle, whittlnc@dhec.sc.gov, at (803) 896-8967 or visit http://www.scdhec.net/lwm/html/vcp_brn.html.

Ongoing challenges, new approaches

Stormwater Phase II Regulation

Storm drains do not take runoff pollution to a wastewater treatment plant. To reduce pollution of our drinking water sources, the Stormwater Phase II regulation establishes a stormwater management program that requires smaller municipal systems to reduce the discharge of pollutants from their storm sewers the best they can by:

- detecting and eliminating illegal discharges;
- controlling both construction site and post-construction runoff;
- developing a program to prevent or reduce pollutant runoff; and
- educating and involving the public in stormwater issues.

For more information on the Phase II program, contact Rick Nuzum, nuzumjr@dhec.sc.gov, at (803) 898-4034, or Arturo Ovalles, ovallear@dhec.sc.gov, (803) 898-4178. For information on runoff pollution and ways to prevent it, contact Anne Marie Johnson, johnsoam@dhec.sc.gov, at (803) 898-4187.

Additional resources:

S.C. population information:
<http://www.ors.state.sc.us>

DHEC's Brownfield Initiative
http://www.scdhec.net/lwm/html/vcp_brn.html

Smart Growth Network
<http://www.smartgrowth.org>

Surface Transportation Policy Project
<http://www.transact.org>

Sprawl Watch Clearinghouse
<http://www.sprawlwatch.org>

American Planning Association
<http://www.planning.org>



DHEC inspectors check industrial facilities periodically to assure that they are operating in compliance with their permit requirements.

Protect & Enhance Coastal Resources

Protection of South Carolina's beaches, tidal water, tidal wetlands and reduction of stormwater runoff are the most important issues affecting South Carolina's coastal region. Pollution measures undertaken upstate will also help the coastal region since all water bodies eventually drain into coastal waters. The coast also contains natural resources not found upstate, so protecting it will become more important as the coastal population grows and more people visit the state's coast.



Oceanfront groins stabilize beaches

Recent legislative changes to the **Coastal Zone Management Act** will allow for the limited construction of oceanfront groins. Groins are rock or wooden structures built into the surf to catch sand for eroding beaches. A prior court case had removed the agency's ability to approve such projects. Groins can provide vital beach stabilization in certain extraordinary situations and will protect public access areas vital to the tourism industry. But construction of a groin will be approved only where impairment to beaches and habitat beyond the groin is minimal. DHEC staff aided in the successful passage of this important legislation with such considerations in mind. <http://www.lpitir.state.sc.us/coderegs/c030.htm>



Dock and pier construction in tidal wetlands

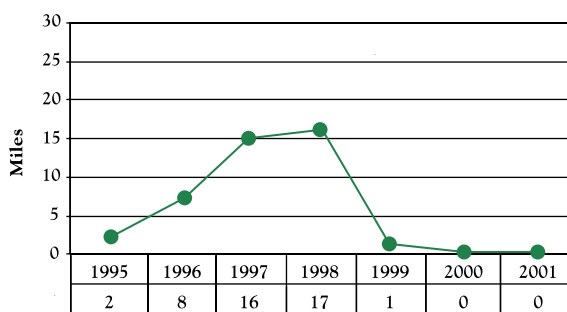
Legislative approval of changes to special project standards for the construction of docks and piers in tidal wetlands will allow the agency to protect vital tidal nursery areas by, among other things, prohibiting docks in small tidal creeks and reducing the total allowable size of docks. These regulatory changes allow the agency to more closely monitor impacts to other coastal resources such as freshwater wetlands, endangered species, and historical resources.

State protects shellfish for public use

DHEC assures that the public's health is protected when they eat oysters, clams and mussels, and that sanitary conditions are maintained in the 570,304 acres of shellfish management areas along the coast. A 500-station sampling network provides year-round data, and shellfish

beds are closed when heavy rain has the potential to wash contaminants into shellfish waters. For information on shellfish areas, visit <http://www.scdhec.net/eqc/water/html/shellfish.html>

Total Length of S.C. Beach Renourishment Projects



Data Source: SC DHEC Office of Ocean and Coastal Resource Management

Ongoing challenges, new approaches

Controlling pollution from stormwater runoff

Controlling stormwater, or **nonpoint source**, runoff throughout the state is especially important for coastal habitats and coastal residents. The effects from runoff will affect the coast more than any other region because all state waters travel to the coast.

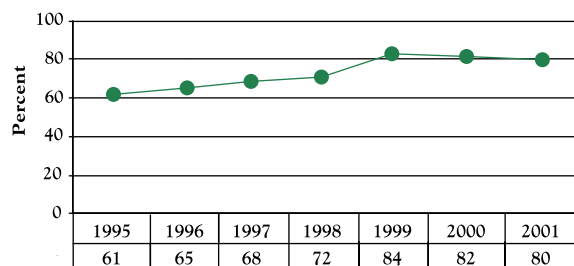
If not controlled, the problem of stormwater runoff will only get worse as growth continues in the state. People and governments can take steps to reduce the pollutants in and volume of stormwater runoff:

- Reduce paved surfaces in developed areas. The more pavement and the larger the footprint of homes and buildings translate into more runoff and the runoff is more polluted. Runoff cannot soak into impervious surfaces, so the amount and the speed of the runoff increases and, with its higher velocity, moves quickly over unpaved ground so that much of it still is not absorbed into the ground. Over paved areas, runoff picks up oils, other residues, and chemicals and then fertilizers, pesticides and animal wastes as it moves over lawns and other unpaved ground on its way to the water. Making residential streets more narrow and driveways shorter reduces impervious surfaces.



- Use **vegetated buffers** — land left undeveloped along waterways. Buffers both clean and reduce the volume of runoff before it reaches a water body and reduce bank erosion and

Percentage of Developed Beaches with a Healthy Profile



Data Source: SC DHEC Office of Ocean and Coastal Resource Management

flooding as well. Restoring a section of a back yard by replacing lawn with native plants creates a buffer, and it eliminates the need for pesticides and fertilizers in the buffer, which also reduces the amount of pollutants reaching the water.

- Maintain stormwater ponds and septic systems to keep pollutants from escaping and reaching water bodies. Make sure your developer or neighborhood association is keeping the neighborhood's stormwater ponds functioning correctly.
- Encourage local governments to change zoning laws to allow developments with narrower streets and small, clustered lots so that impervious surfaces are reduced and more land can be preserved in its natural state.



Additional resources:

Charleston Harbor Project

<http://www.scdhec.net/ocrm/html/chp.html>

Land use ordinances

<http://www.scdhec.net/eqc/ocrm/clearinghouse/html/landusedoc3.html>

Special area management plans

<http://www.scdhec.net/eqc/ocrm/html/samps.html>

State of the beaches report

<http://www.scdhec.net/ocrm/html/sob301.html>


Shellfish state, public grounds

<http://www.dnr.state.sc.us/marine/index.html>



Surf advisories result from the unplanned network of outfall pipes that discharge stormwater directly onto public beaches in Horry County. DHEC collects surf water samples twice monthly during the swim season and after rain, sewage spills, or excessively high tides. Advisories are issued if bacteria counts exceed safe levels.

Protect, Continually Improve, and Restore the Environment



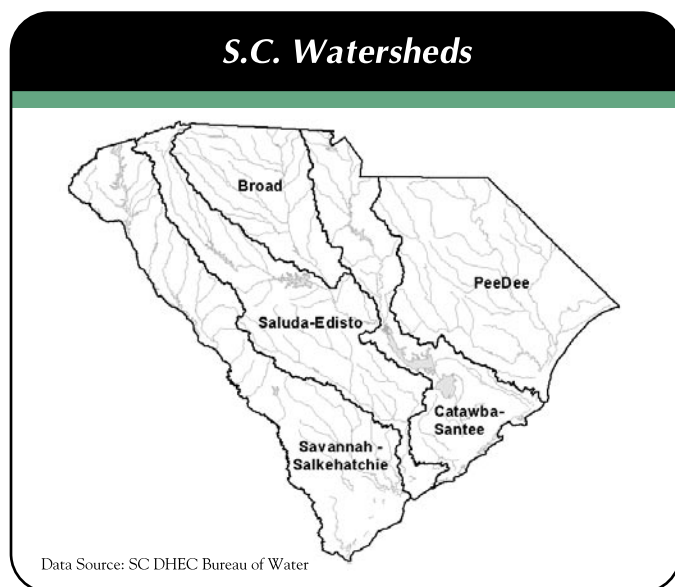
Environmental quality, in its most basic form expressed as the concentration of pollutants, is a function of what is released, how it is diluted, and how much or how efficiently the environment can assimilate the pollutant. The lifetime of a pollutant in the environment can range from minutes to hundreds of years. Volatile organic compounds can react quickly in sunlight in the presence of nitrogen oxides to contribute to ozone concentrations many miles downwind of the sources, and a bottle carelessly tossed into a stream can be there a century later.

Environmental protection involves understanding the capacity of land, air and water to withstand our impact, minimizing the effects of what we do, and containing and cleaning up the results when we don't.

How much pollution can the environment absorb?

Water

A watershed is the land area that delivers water, sediment and dissolved substances to a stream, lake or estuary. DHEC works to protect, restore and improve water quality by focusing our regulatory, monitoring and planning efforts on watersheds. All movement of water and physical, chemical and biological processes – including human activities within a watershed – affect the quantity and quality of water when it eventually collects. Watersheds are significant because the water quality at any point in the system impacts the quality everywhere downstream.



As required by the Clean Water Act, DHEC has identified all waters where standards are not being met. This resulting document is called the Impaired Waters List or 303(d) list (after Section 303(d) of the Federal Clean Water Act) and is used to target those bodies of water where cleanup plans are needed. The impaired waters list can be found at <http://www.scdhec.net/water/pubs/303d2002.pdf>. DHEC must develop a **Total Maximum Daily Load (TMDL)** for each lake, river or stream that does not meet standards. A TMDL is a calculation of the maximum amount of a pollutant that a water body can receive from all sources and still meet water quality standards and remain healthy. For more on TMDLs in the Charleston Harbor system, see page 22. The Citizen's Guide to Clean Water is a good resource for those interested in the protection of their watershed. <http://www.scdhec.net/eqc/water/pubs/citgd.pdf>.

Air

Like in a watershed, air pollution sources, often concentrated in urbanized areas, can impact everything "downstream." The impacted areas can change from season to season, and often from day to day, depending on wind and weather. The protection of the state's only Class 1 area in Charleston County from the effects of air pollutants is also based on a calculation of the impacts from all sources "upstream" – as far away as Columbia some 150 miles away – and our understanding of the capacity of the environment to assimilate pollution and remain healthy. For more on Class 1 areas, see page 22.



Effects of drought

In 2002, South Carolina experienced its fifth consecutive year of drought. Record low stream flows and groundwater levels were recorded all across the state.

- Industries spent millions of dollars to find ways to deal with the shortage and to conserve the available water.
- Water suppliers implemented mandatory and voluntary water restrictions.
- Salt water moved up typically fresh water rivers, causing concern about some water supply intakes.
- Hundreds of private wells throughout the state went “dry” as groundwater levels dropped to historical lows.
- Agriculture was declared a disaster for the fifth consecutive year.
- The impact of the southern pine beetle, taking advantage of drought-weakened trees, was more than \$220 million.

South Carolina law, the **Drought Response Act**, addresses short-term water shortages. The **Groundwater Use and Reporting Act** requires the permitting of groundwater withdrawals of more than 3 million gallons in any one month in any of the three coastal Capacity Use Areas. Local groundwater management plans are required and are currently in the initial stages of development. The **Surface Water Withdrawal and Reporting Act** requires surface water withdrawals of more than 3 million gallons in any one month to be reported to DHEC annually, and interbasin transfers of surface water require a permit from DHEC. The permitting, monitoring and water use reporting data from these programs provide critical data for long-term water resource planning. <http://www.dnr.state.sc.us/water/climate/sco/drought.html>

‘Cleaner Air Sooner’ is the goal

Climate also has a profound effect on the dispersion of air pollutants and, in the case of secondary pollutants like ozone and fine particulate matter, their formation. The same dry conditions that mark the drought can also contribute to ozone formation.

Since August 2002, DHEC has been working with local governments, industry, environmental groups, and other interested parties to consider possible ozone reduction strategies that could lead to cleaner air sooner than would be required by the current federal time frames.

The Early Action Plan (EAP) protocol is only available to areas, like all of South Carolina, that currently attain the one-hour ozone standard, but may approach or exceed the eight-hour ozone standard. By the end of 2002, 45 of the state’s 46 counties had the initial agreements in place with DHEC and the U.S. Environmental Protection Agency. The individual compacts provide local areas flexibility to control air emissions in the most beneficial and appropriate ways for each area. The public health and environmental benefits realized by meeting the new standard sooner than required and also deferring the effective date of the nonattainment designation are the most important reasons for developing an EAP. More information about the EAP is available at

<http://www.scdhec.net/eqc/baq/html/eap.html>, or from Henry

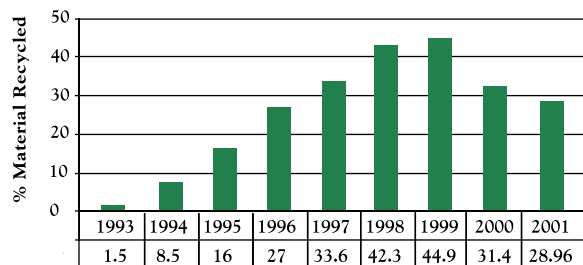
Phillips at (803) 898-3260 or phillimh@dhec.sc.gov.



‘Modeling’ helps meet standards

One of the main tools used to show that cleaner air sooner goals can be met is a “model” that allows different strategies to be tested. DHEC’s Air Program modelers have been working

Solid Waste Recycle Rate



Beginning in FY 2000 SC DHEC adopted the US EPA formula for measuring the recycle rate. This new formula measures only municipal solid waste (MSW) and not the total waste stream which had been included in previous years.

ozone concentrations. The model will be an important tool to explore what methods or combinations, possibly including controls on industrial emissions, cleaner fuels and automobiles, rapid transit, vehicle inspection and repair, and carpooling, will ensure that air quality standards are met.

Air toxics growing in concern

More than 200 South Carolina facilities store regulated toxic and flammable substances for which Section 112(r) of the Clean Air Act requires a facility accidental release prevention program. These plans help prevent accidental releases to the environment and minimize the consequences of releases that do occur.

All affected facilities are inspected regularly for compliance. Since the program's inception in June 1999, more than 60 percent of the affected facilities have been inspected.

Local responders and citizens must work with local facilities to develop and implement the plans. Residents should learn the appropriate evaluation or "shelter-in-place" procedures in case a nearby facility has an accidental release. http://www.scdhec.net/eqc/baq/html/112r_genold.html

Ongoing challenges, new approaches

Take a Break from the Exhaust (TABFTE)

The Bureau of Air Quality's Columbia employees tallied 4,250 miles a day traveled in their commutes to and from work. In an effort to reduce the miles and the amount of ground-level ozone their vehicles created, they launched TABFTE.

since late 2000 to gather data (weather, emissions, ambient concentrations, etc.) to establish a model of one of the most significant ozone episodes in the last few years. Once the model has been shown to represent this period adequately, this "base case" will be used to approximate the effects of population and industrial growth and control strategies on future

Starmet Closure

In June 2002, DHEC issued an administrative and emergency order closing the STARMET, CMI Inc. facility in Barnwell County. Since then, Bureau of Land and Waste Management staff has maintained a daily presence at the site. Three concerns at closure were leaking wastewater lagoons, inadequate security for radioactive material onsite, and large quantities of stored radioactive waste. The U.S. Environmental Protection Agency has initiated an emergency removal action and is currently cleaning up the wastewater lagoons that are leaking water contaminated with depleted uranium (DU) and posing the potential for environmental contamination.

Security guards are present at the site 24 hours a day. There is also a plan to remove more than 12,000 drums of depleted uranium waste, radioactive and hazardous in nature, which is being stored on site improperly and in excessive quantities. The cleanup presents a significant and unique challenge and will require several years to complete.

The TABFTE program encourages employees to reduce vehicle miles traveled (VMTs) throughout the workweek and in particular on Ozone Action Days by taking actions such as:

- Ride sharing
- Telecommuting
- Adjusting work schedules
- Biking, walking and staying in for lunch
- Using mass transit

During the ozone season (April to October), a simple program was available as part of the normal computer login to allow employees to indicate what action they took the previous day.

Points were given depending on the action taken. On Ozone Action Days, points were doubled.

Teams were established, and a friendly competition took place. Individual and team scores were made available to each employee throughout the season. Preliminary results indicate that a majority of participants stayed in for lunch more often than normal, especially during Ozone Action Days. The frequency of carpooling was greater as well.

Plans are being made to expand the program next year to all of Environmental Quality Control. For more information about how to start a similar effort, contact Michael Monroe, Bureau of Air Quality Education and Outreach, (803) 898-3261, or via e-mail at monroemc@dhec.sc.gov.

Additional resources:

S.C. Drought Information Center

<http://www.dnr.state.sc.us/water/climate/sco/drought.html>

303(d) Impaired Waters List

<http://www.scdhec.net/water/pubs/303d2002.pdf>

Citizens Guide to Clean Water

<http://www.scdhec.net/eqc/water/pubs/citgd.pdf>

Ozone Early Action Plan

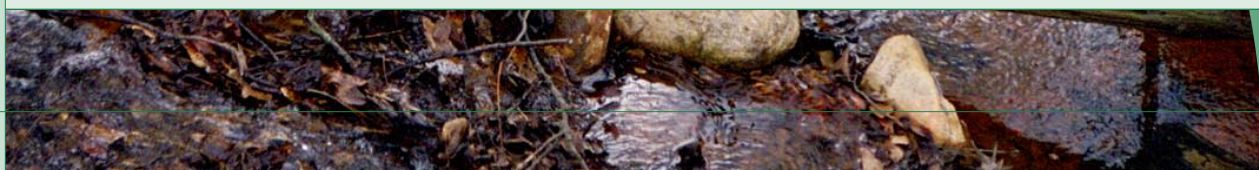
<http://www.scdhec.net/eqc/baq/html/eap.html>

Accidental Release Prevention Program

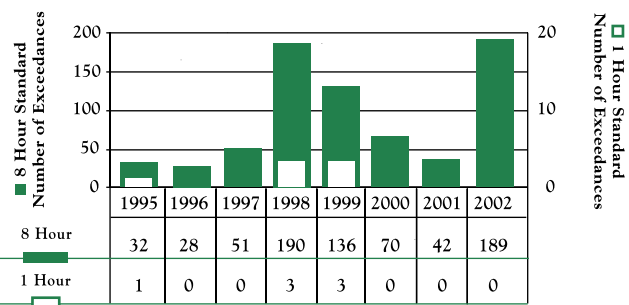
http://www.scdhec.net/eqc/baq/html/112r_genold.html



DHEC checks water quality at a network of monitoring stations throughout the state. Surface water and sediment samples are collected and analyzed for chemical-specific parameters periodically.

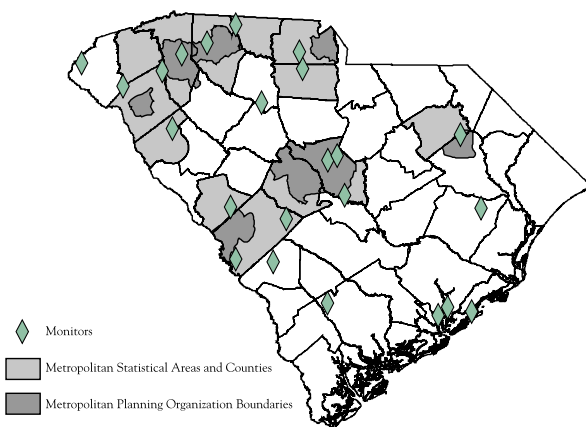


Ozone NAAQS Exceedances



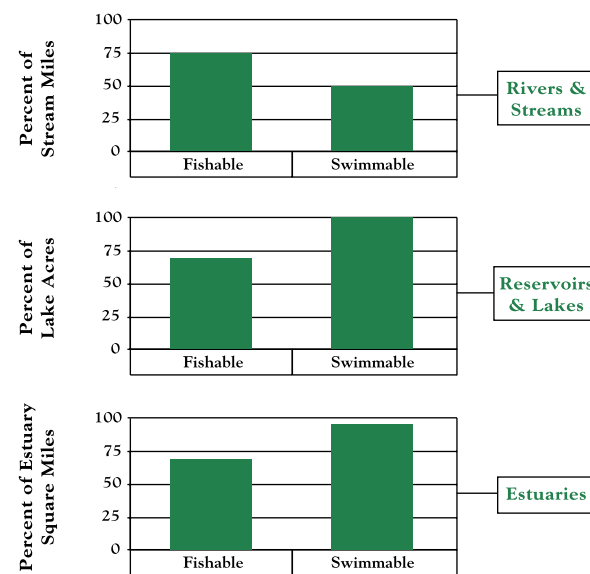
Data Source: SC DHEC Bureau of Air Quality

Potential Ozone Nonattainment Boundaries



Data Source: SC DHEC Bureau of Air Quality

Percentage of State Waters Fishable and Swimmable*



* SC DHEC's goal is for 80% of all surface waters to support aquatic life and be safe for swimming by 2007

Increase the Quality & Years of Healthy Life for Seniors

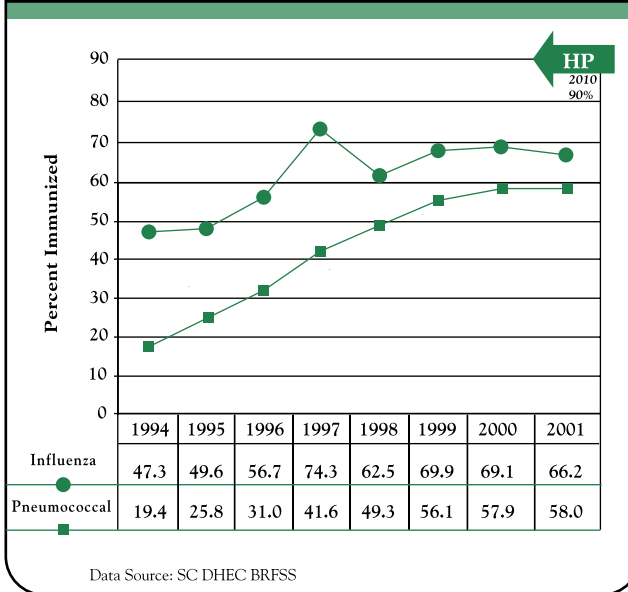
A dramatic rise in the senior population makes it critical that we address the specific health issues facing an aging population. Remaining healthy throughout life is the goal. Poor health and financial insecurity are the greatest worries people of all ages have about living to a very old age, according to a 1999 American Association of Retired Persons poll. The typical American would like to live to about 91, but expects to live only until 80. Nine in 10 adults believe that the way they age is at least partly within their control, and more than four in five (84 percent) report that they are now doing something to help them stay active and healthy as they grow older. Now, more than ever, preventive care must accompany the aging process.



Senior shots can save lives

Influenza (the flu) and pneumonia are the eighth leading cause of death in South Carolina, claiming 752 residents age 65 and older in 2001. Nationally, about 20,000 deaths a year are attributed to flu. Ninety percent of deaths from the flu occur among people ages 65 and older. Medicare costs for influenza-related hospitalizations in the United States can reach \$1 billion each year. A one-time dose of pneumonia vaccine and annual flu shots are the primary methods for preventing these diseases and their severe complications.

Persons Ages 65+ Who Received an Influenza Vaccine in the Past Year or a Pneumonia Vaccine Ever

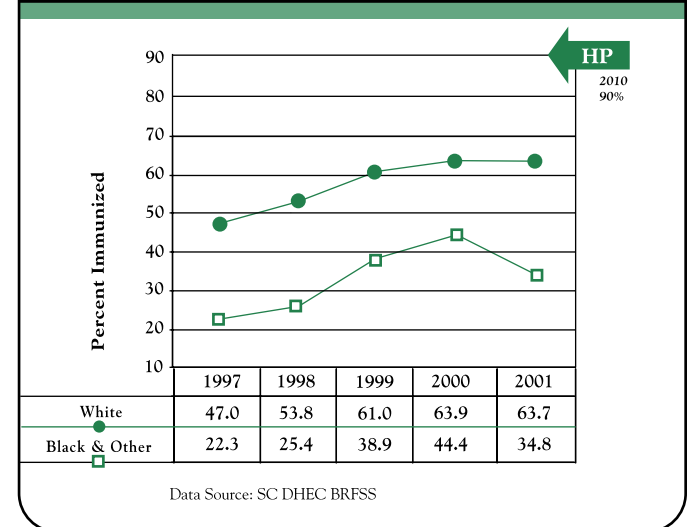


Among South Carolina's senior population, 66 percent reported having received a flu shot in 2001, down almost 4 percent since 1999, according to the Behavioral Risk Factor Surveillance System (BRFSS). Fifty-eight percent of South Carolina respondents to BRFSS said they had ever received a pneumonia vaccine, up almost 2 percent from 1999. Nationally, flu vaccine rates among seniors dropped in 2000-2001, possibly because of delays in distribution of the vaccine to states during those years. The vaccination is only reaching about two-thirds of seniors 65 and older. Four out of 10 people remain unprotected from pneumonia. People can contact their DHEC county health departments to obtain information on receiving flu vaccines. <http://www.scdhec.net/hs/diseasecont/immunization>

Arthritis a burden for seniors

Arthritis and other rheumatic conditions remain among the most common chronic conditions and the leading cause of disability in the United States. While arthritis is not limited to seniors, more than half of South Carolina adults with arthritis are 65 or older. Thirty-one percent of South Carolinians have either chronic joint symptoms or doctor-diagnosed arthritis. For more information, contact the Arthritis Foundation, Carolinas Chapter, at (704) 529-5166 or 1-800-883-8806.

Persons Ages 65+ Who Ever Received a Pneumococcal Vaccine by Race



Prevalence Rate of Arthritis and Activity Limitation Attributable to Chronic Joint Symptoms by Selected Characteristics

Characteristics	Adults with Arthritis (Either CJS or DrDxArth)	Activity Limitation Attributable to CJS
Total	31.4	8.2
Sex		
Female	36.2	9.8
Male	26.1	6.5
Age (years)		
18-44	17.3	4.3
45-64	42.4	12.2
≥65	57.6	14.0
Race/Ethnicity		
White, non-Hispanic	33.4	9.0
Black, non-Hispanic	26.7	6.1
Hispanic	33.5	10.5
Other	21.3	4.2

Data Source: SC BRFSS, 2000

Help for People with Arthritis

DHEC public health departments offer self-help courses and teams of professionals to work individually with people who have arthritis. Self-help courses teach patients:

- Fatigue management
- Pain management
- Nutrition
- Exercises
- Relaxation techniques
- Problem-solving skills
- Emotional health
- Doctor-patient relationships

Through the Division of Home Health and Long Term Care, teams of professionals work with a patient's arthritis specialist/rheumatologist to support the medical plan of care and to maximize the patient's level of functioning.

Licensed Medical Social Workers offer psychosocial assessments, counseling, education and links to support services.

Registered dietitians provide nutritional assessments and education to help manage weight.

Registered nurses provide assessments, education, medical monitoring and medication instruction.

Physical therapists and occupational therapists assist homebound patients.

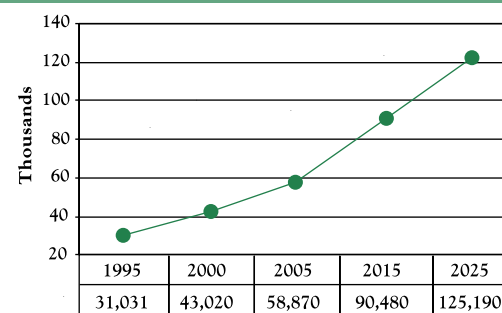
Alzheimer's takes toll on seniors

As people age, both the nation and the state will face the soaring costs of Alzheimer's disease and related dementia. Alzheimer's disease causes confusion, personality and behavior changes, and impaired judgment. Eventually, most people with Alzheimer's disease become unable to care for themselves.

The lifetime cost of care for an Alzheimer's patient is estimated at \$174,000.

The number of Alzheimer's patients in South Carolina will increase from 43,000 in 2000 to 125,000 in 2025, according to estimates. The total cost impact to the state, insurance companies and families together with health care inflation of 5 percent annually is expected to reach \$7.7 billion in 2025.

Projected Alzheimer's Patients Age 65+ in S.C.



Data Source: USC School of Public Health, Dementia and Alzheimer's Estimates

The Alzheimer's Disease Registry/Aging Project maintains a database on people with Alzheimer's disease in South Carolina. For more information call (803) 777-5337.

Ongoing challenges, new approaches

The **Eden Alternative** concept seeks to improve the quality of life for seniors living in long-term care facilities. South Carolina developed an Eden Alternative Coalition in 1998 to encourage facilities to create more homelike environments for their residents. Eden Alternative facilities seek to eliminate the three plagues of loneliness, helplessness and boredom, which create suffering, particularly among seniors.

It is not unusual to see children, plants and animals interacting in these vibrant facilities. One of the 10 Eden principles sums up the philosophy:

In a human community, the wisdom of the elders grows in direct proportion to the honor and respect accorded to them.

More than 40 homes in South Carolina are involved





in implementing the Eden Alternative or other quality initiatives with similar values and principles. Over time, many facilities that have implemented the Eden model have demonstrated decreased staff turnover rates, decreased use of medications, decreased infection rates and decreased resident mortality rates. Elder-centered facilities show increased family and community involvement, increased use, increased worker satisfaction, and an increase in favorable attention from local print and broadcast media.

<http://www.scedenalt.com>

Additional resources:

S.C. Office of Senior and Long Term Care Services
S.C. Department of Health and Human Services
http://www.dhhs.state.sc.us/offices/long_term_care/ltcindex.htm

DHEC Immunization Program
<http://www.scdhec.net/hs/diseasecont/immunization>

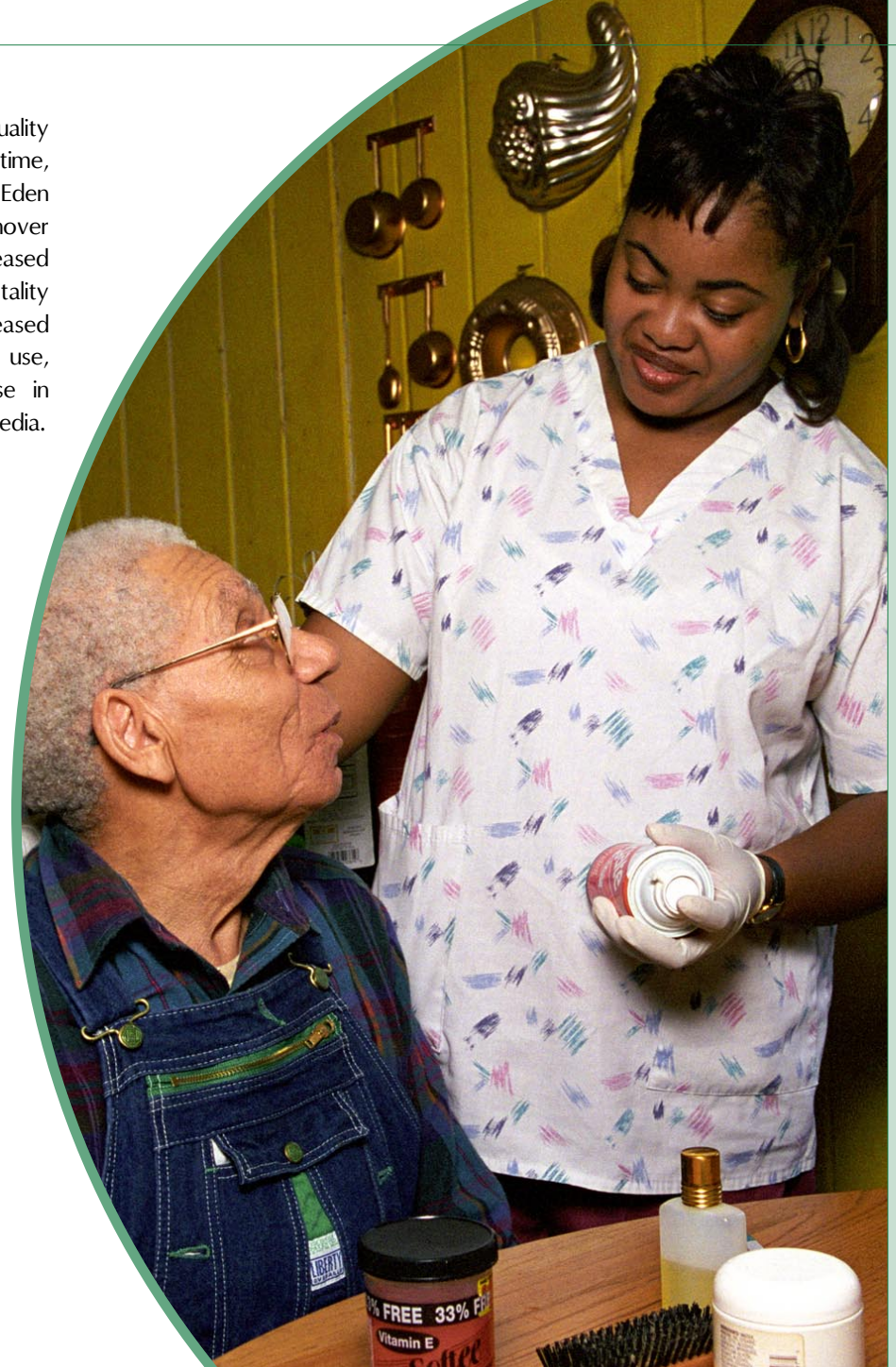
S.C. Arthritis Prevention and Control Program
<http://www.scdhec.net/HS/mch/perinatal/Womenshealth.html>

Eden Alternative
<http://www.edenalt.com>
<http://www.scedenalt.com>

The National Council on Aging
<http://www.ncoa.org>

AARP
<http://www.aarp.org>

Alzheimer's Association
<http://www.alz.org>



DHEC home health staff tend to the health needs of the homebound and elderly.

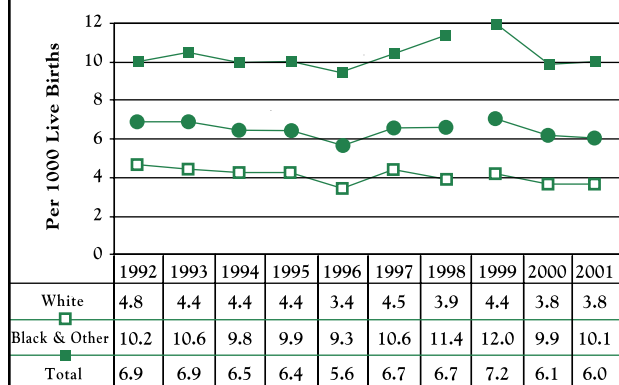
South Carolina Data

Collecting and analyzing data on health indicators allows South Carolina to detect trends, such as a rise in the numbers of disease or death occurring in a community that should be addressed through programs or interventions. Likewise, if a trend analysis shows improvement, it helps us determine what is working. Appendix A: South Carolina Data continues the graphic presentation of trends that DHEC has been presenting in its annual reports since 1997. The data is presented by six age groups: pregnant women and infants; children birth to 14; teens; young adults ages 20-44; adults 45-64; and mature adults 65 and older. The health indicators presented are the leading causes of death or hospitalization in each age group or are other public health issues of emerging concern.

^aIn the following charts, data for the years 1999 and later use ICD-10, a disease classification system that promotes international comparability in mortality statistics. Periodic revisions reflect advances in medical science. ICD-10 is generally similar to ICD-9, but accounts for some changes observed in mortality statistics. For more information about the ICD-10: <http://www.cdc.gov/nchs/icd9.htm> or the National Center for Health Statistics (NCHS) Web site at: <http://www.cdc.gov/nchs/>.



Neonatal* Mortality Rates By Race

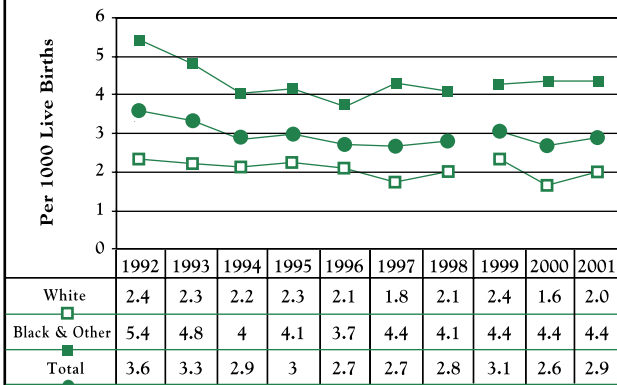


*Neonatal deaths occur within the first 28 days of life.

Data Source: Vital Statistics, SC DHEC

Years 1999+ used ICD-10

Postneonatal* Mortality Rates By Race

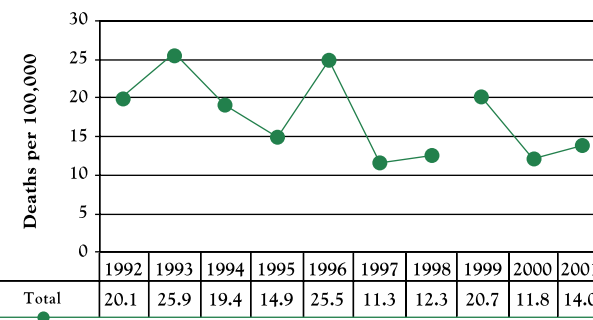


*Postneonatal deaths occur from 28 days to one year of life

Data Source: Vital Statistics, SC DHEC

Years 1999+ used ICD-10

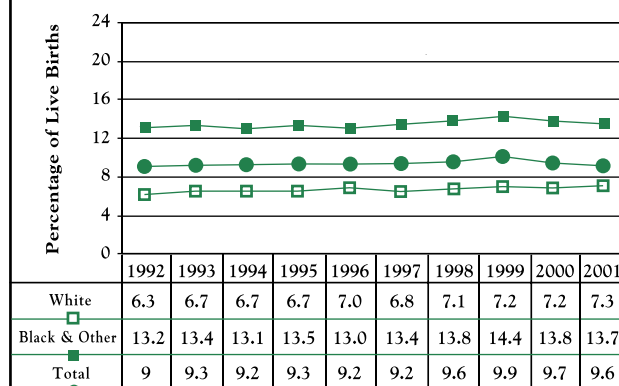
Child Accidents Death Rates Ages 1-4



Data Source: Vital Statistics, SC DHEC

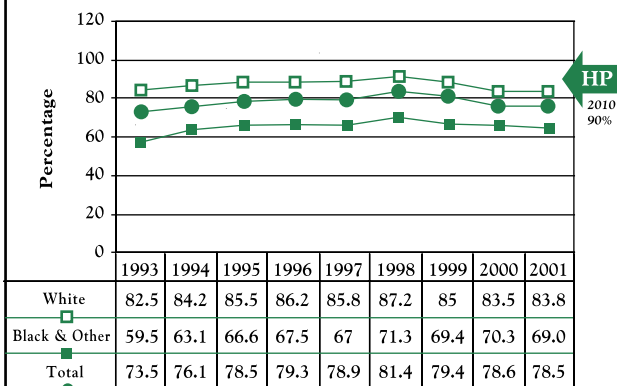
Years 1999+ used ICD-10

Percentage of Low Birth Weight Infants (<2500 grams) By Race



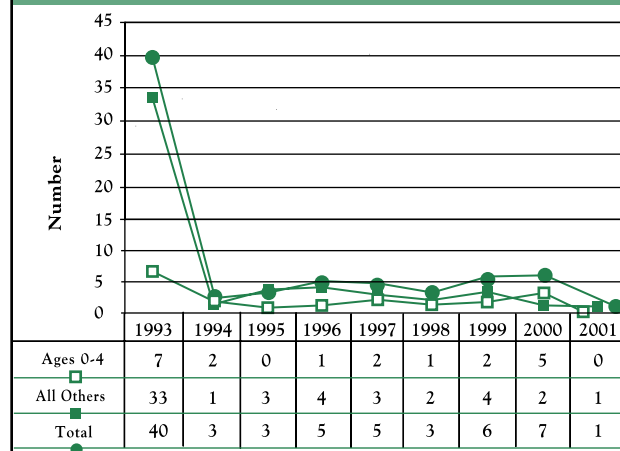
Data Source: Vital Statistics, SC DHEC

Percent Women Receiving Prenatal Care During First Trimester by Race



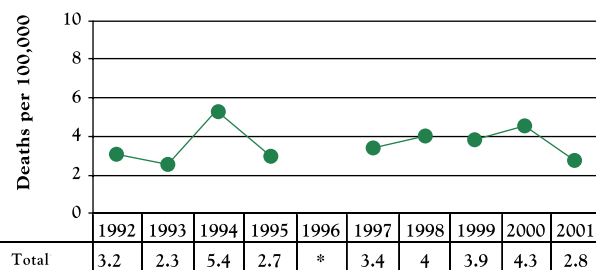
Data Source: Vital Statistics, SC DHEC

Influenzae B (Invasive Infection) Cases



Data Source: SC Reportable Disease Surveillance System, SC DHEC

Child Homicide Rates Ages 1-4

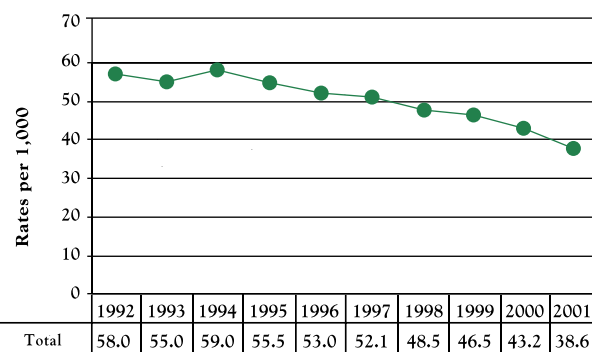


* < 5 deaths

Data Source: Vital Statistics, SC DHEC

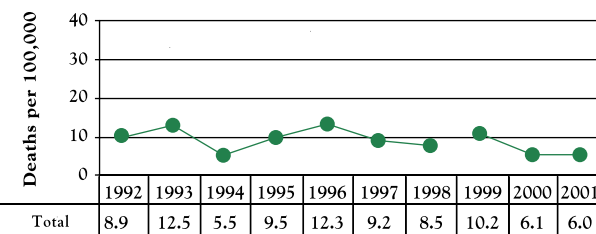
Years 1999+ used ICD-10

Teenage Pregnancy Rates Ages 15-17



Data Source: Vital Statistics, SC DHEC

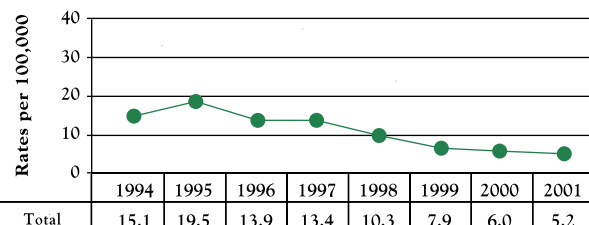
Teenage Suicide Rates Ages 15-19



Data Source: Vital Statistics, SC DHEC

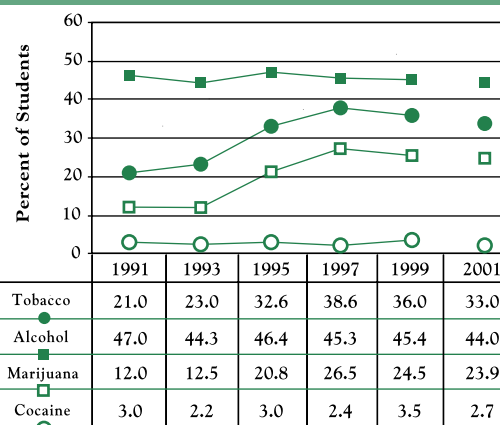
Years 1999+ used ICD-10

Children Hospitalized for Chickenpox Ages 0-4



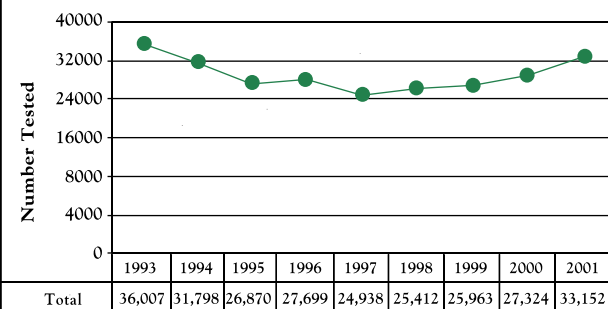
Data Source: Hospital Discharge Survey, SC Budget & Control Board, Office of Research & Statistics

Substance Abuse Among High School Students



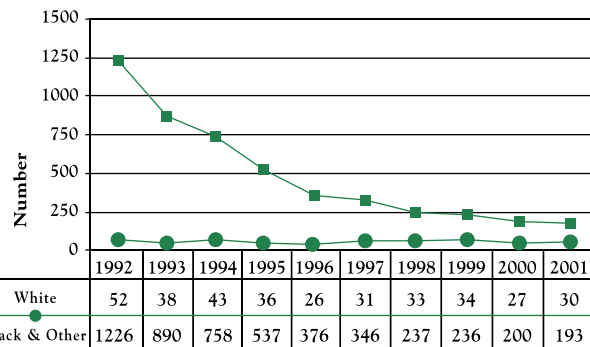
Data Source: Youth Risk Behavior Survey, SCDOE
SC 2001 is unweighted

HIV Testing in DHEC Clinics Ages 20-44



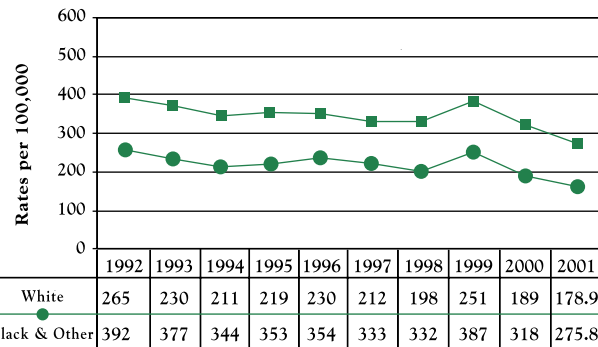
Data Source: Bureau of Laboratories, SC DHEC

Infectious Syphilis All Ages



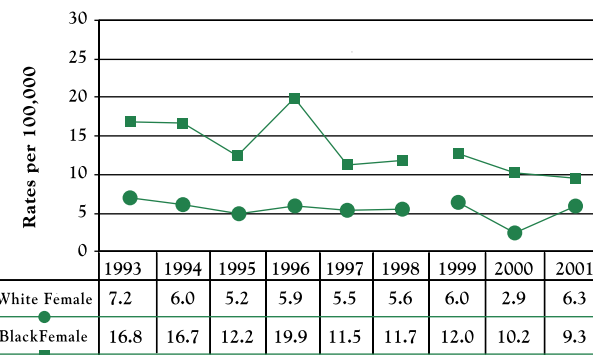
Data Source: SC Reportable Disease Surveillance System, SC DHEC

Pelvic Inflammatory Disease Rates All Ages



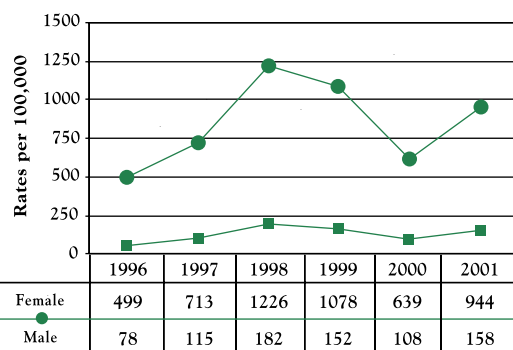
Data Source: Hospital Discharge Survey, SC Budget & Control Board, ORS

Cervical Cancer Mortality Rates Ages 45-64



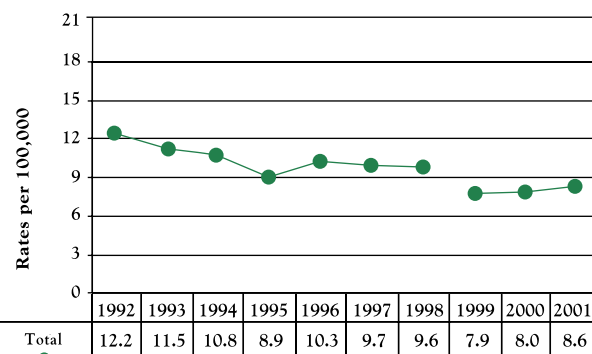
Data Source: Vital Statistics, SC DHEC
Years 1999+ used ICD-10

Chlamydia Genital Infection Rates Ages 20-44



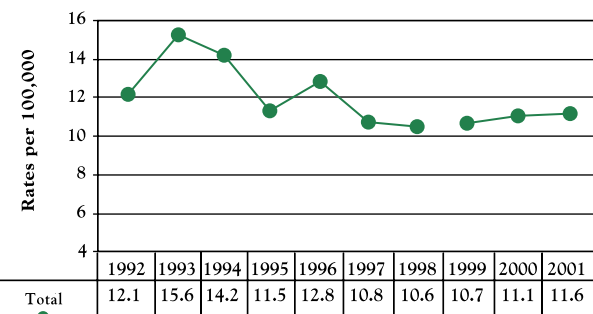
Data Source: SC Reportable Disease Surveillance System, SC DHEC

Age-Adjusted Homicide Rates All Ages



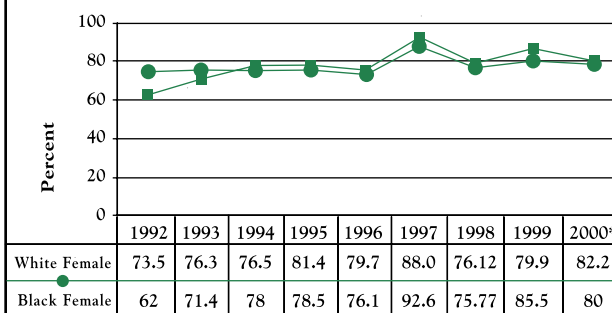
Data Source: Vital Statistics, SC DHEC
Years 1999+ used ICD-10

Age-Adjusted Suicide Rates All Ages



Data Source: Vital Statistics, SC DHEC
Years 1999+ used ICD-10

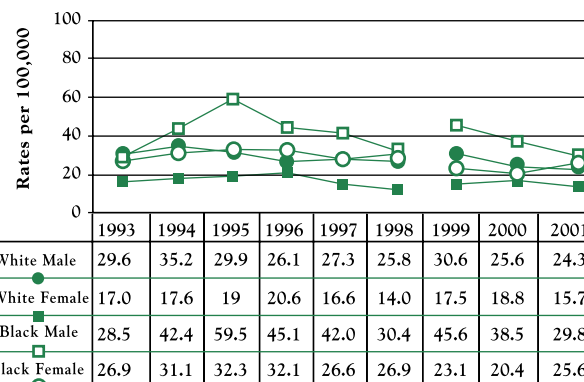
Prevalence of PAP Screening (past 3 years), Women Ages 45 and Older



Data Source: Behavior Risk Factor Surveillance System, SC DHEC

*Question not asked on 2001 BRFSS

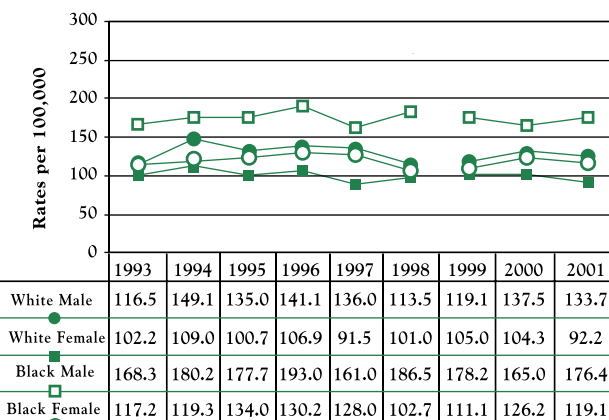
Colorectal Cancer Mortality Rates Ages 45-64



Data Source: Vital Statistics, SC DHEC

Years 1999+ used ICD-10

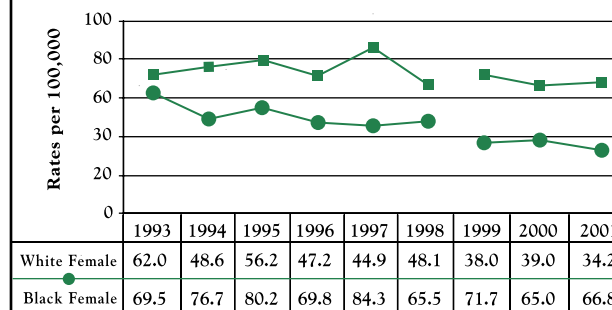
Colorectal Cancer Mortality Rates Ages 65 and Older



Data Source: Vital Statistics, SC DHEC

Years 1999+ used ICD-10

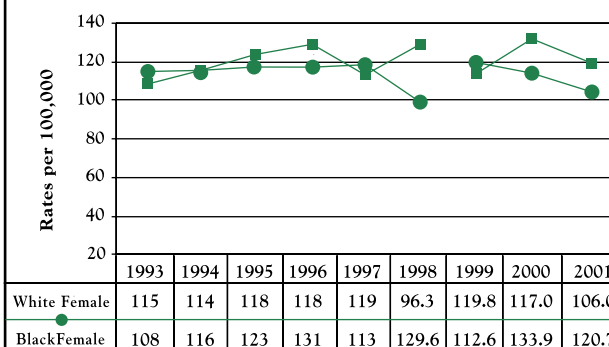
Breast Cancer Mortality Rates Ages 45-64



Data Source: Vital Statistics, SC DHEC

Years 1999+ used ICD-10

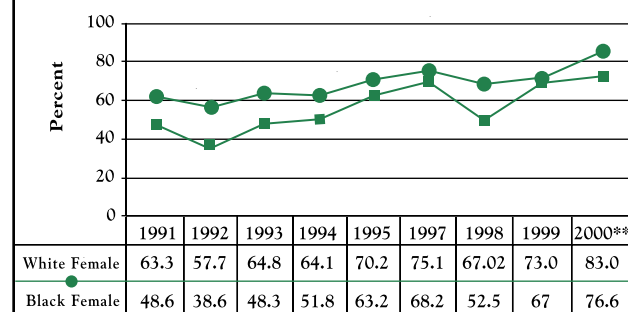
Breast Cancer Mortality Rates Ages 65 and Older



Data Source: Vital Statistics, SC DHEC

Years 1999+ used ICD-10

Women 45-64 Receiving a Mammogram & Clinical Breast Exam*

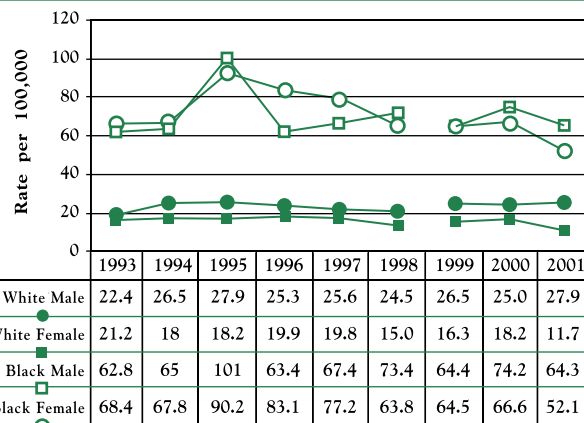


Data Source: Behavior Risk Factor Surveillance System, SC DHEC

* Past two years

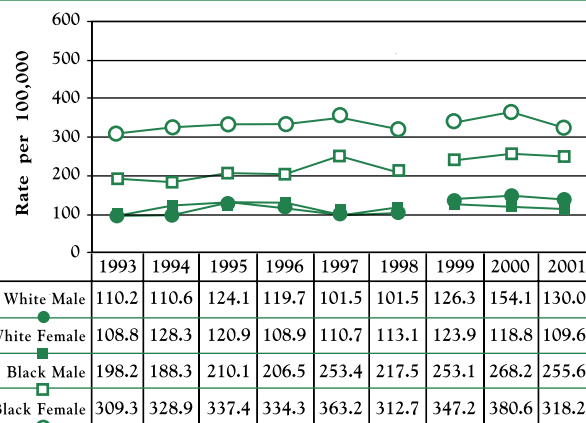
** Question not asked on 2001 BRFSS

Diabetes Mortality Rates Ages 45-64



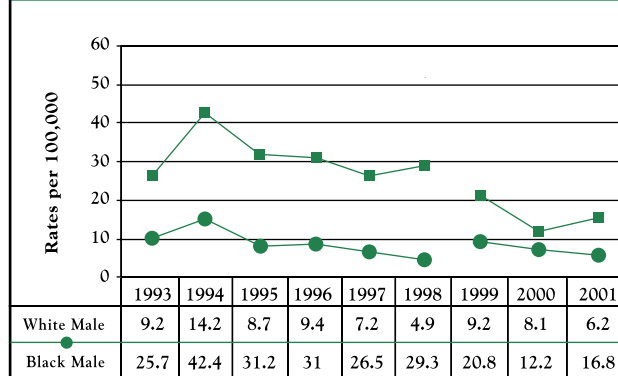
Data Source: Vital Statistics, SC DHEC
Years 1999+ used ICD-10

Diabetes Mortality Rates Ages 65 and Older



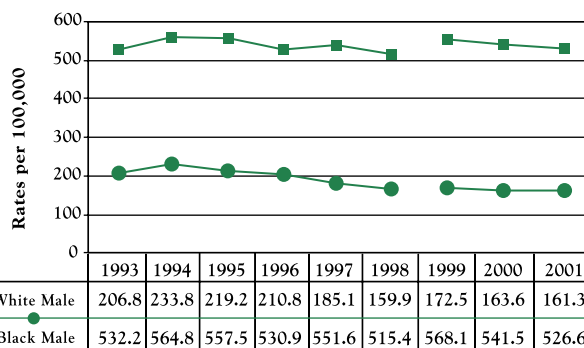
Data Source: Vital Statistics, SC DHEC
Years 1999+ used ICD-10

Prostate Cancer Mortality Rates, Ages 45-64



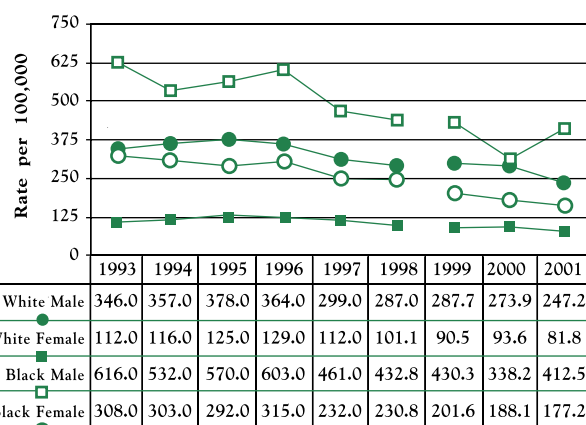
Data Source: Vital Statistics, SC DHEC
Years 1999+ used ICD-10

Prostate Cancer Mortality Rates Ages 65 and Older



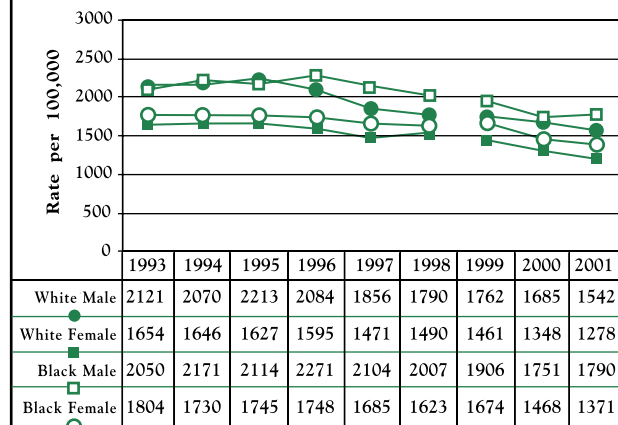
Data Source: Vital Statistics, SC DHEC
Years 1999+ used ICD-10

Heart Disease Mortality Rates Ages 45-64



Data Source: Vital Statistics, SC DHEC
Year 1999+ used ICD-10

Heart Disease Mortality Rates Ages 65 and older

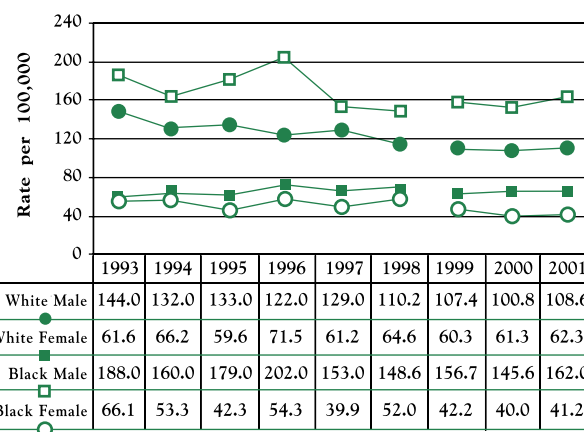


Data Source: Vital Statistics, SC DHEC
Year 1999+ used ICD-10



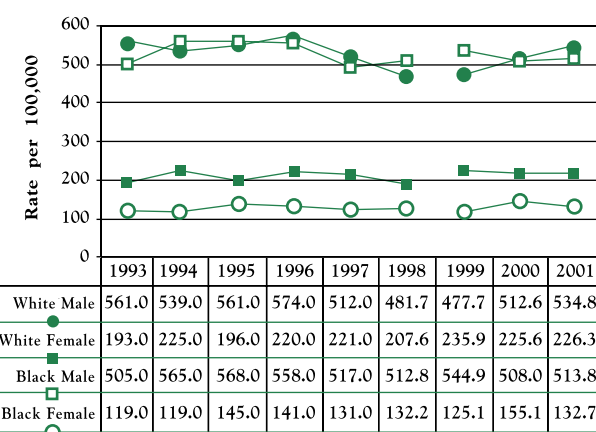
Regular exercise is an important part of disease prevention.

Lung Cancer Mortality Rates Ages 45-65



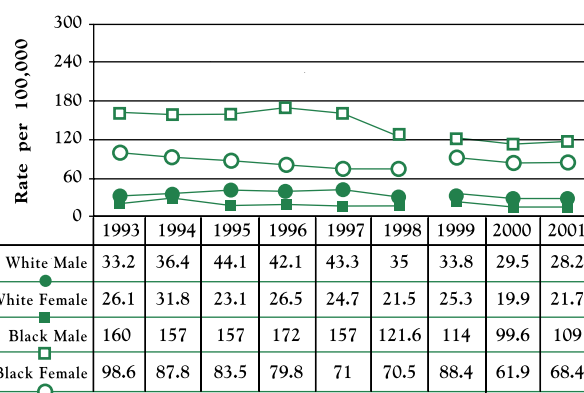
Data Source: Vital Statistics, SC DHEC
Year 1999+ used ICD-10

Lung Cancer Mortality Rates Ages 65 and Older



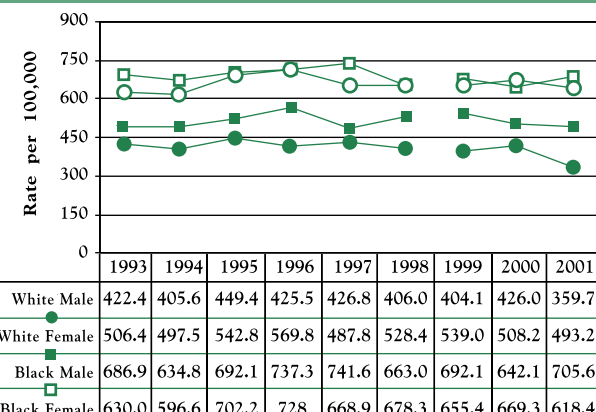
Data Source: Vital Statistics, SC DHEC
Year 1999+ used ICD-10

Stroke Mortality Rates Ages 45-64



Data Source: Vital Statistics, SC DHEC
Year 1999+ used ICD-10

Stroke Mortality Rates Ages 65 and Older



Data Source: Vital Statistics, SC DHEC
Year 1999+ used ICD-10

Healthy People 2010 Objectives

South Carolina & United States Data



South Carolina uses Healthy People 2010 goals to measure progress toward health improvement. Each of the 10 Healthy People 2010 leading health indicators has one or more objectives associated with it. As a group, the leading health indicators reflect the major health concerns in the United States at the beginning of the 21st century. They were selected based on their ability to motivate action, the availability of data to measure progress, and their importance as public health issues.

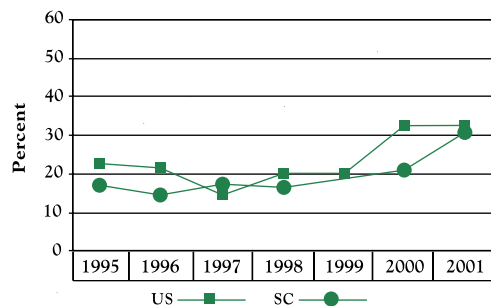
HEALTHY PEOPLE OBJECTIVE DATA SOURCES

- | | |
|--|--|
| <p>01-01 Current Population Survey (CPS), U.S. Census Bureau, Bureau of Labor & Statistics.
http://www.census.gov</p> <p>14-24a National Immunization Survey (NIS), CDC, NIP and NCHS.
http://www.cdc.gov/nis</p> <p>14-29a SC: DHEC Behavioral Risk Factor Surveillance Survey (BRFSS), Bureau of Epidemiology.
http://www.scdhec.net/hs/epi</p> <p>14-29b US: National Health Interview Survey (NHIS), CDC, NCHS.
http://www.cdc.gov/nchs/nhis.htm</p> <p>15-15a SC: DHEC Vital Records, Office of Public Health Statistics and Information Services.
http://www.scdhec.net/scan</p> <p>16-06a US: National Vital Statistics System - Mortality (NVSS-M), CDC, NCHS.
http://www.cdc.gov/nchs/nvss.htm</p> <p>19-02 SC: DHEC Behavioral Risk Factor Surveillance Survey (BRFSS), Bureau of Epidemiology.
http://www.scdhec.net/hs/epi</p> <p>US: National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.
http://www.cdc.gov/nchs/nhanes.htm</p> <p>SC: DHEC Behavioral Risk Factor Surveillance Survey (BRFSS), Bureau of Epidemiology.
http://www.scdhec.net/hs/epi</p> <p>US: Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCCDPHP.
http://www.cdc.gov/nccdphp/brfss</p> <p>22-07 Youth Risk Behavior Surveillance System (YRBSS), CDC, NCCDPHP.
http://www.cdc.gov/nccdphp/dash/yrbs/index.htm</p> | <p>25-11 SC: Youth Risk Behavior Surveillance System (YRBSS), CDC, NCCDPHP.
http://www.cdc.gov/nccdphp/dash/yrbs/index.htm</p> <p>26-10a SC: Youth Risk Behavior Surveillance System (YRBSS), CDC, NCCDPHP.
http://www.cdc.gov/nccdphp/dash/yrbs/index.htm</p> <p>US: National Household Survey on Drug Abuse (NHSDA), SAMHSA.
http://www.samhsa.gov</p> <p>26-10c SC: SC Department of Alcohol and Other Drug Abuse Services.
http://www.daodas.state.sc.us</p> <p>US: National Household Survey on Drug Abuse (NHSDA), SAMHSA.
http://www.samhsa.gov</p> <p>26-11c SC: DHEC Behavioral Risk Factor Surveillance Survey (BRFSS), Bureau of Health Services, Division of Epidemiology
http://www.scdhec.net/hs/epi</p> <p>US: National Household Survey on Drug Abuse (NHSDA), SAMHSA.
http://www.samhsa.gov</p> <p>27-01a SC: DHEC Behavioral Risk Factor Surveillance Survey (BRFSS), Bureau of Health Services, Division of Epidemiology
http://www.scdhec.net/hs/epi</p> <p>US: National Health Interview Survey (NHIS), CDC, NCHS.
http://www.cdc.gov/nchs/nhis.htm</p> <p>27-02b Youth Risk Behavior Surveillance System (YRBSS), CDC, NCCDPHP.
http://www.cdc.gov/nccdphp/dash/yrbs/index.htm</p> |
|--|--|



Survey data helps DHEC target outreach efforts.

Adult Participation in Regular Physical Activity*, S.C. and U.S.



Data Source: BRFSS

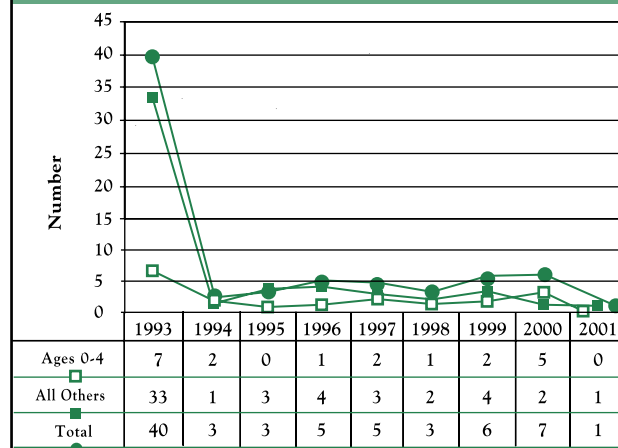
*Adults aged 18 years and older who engage in 30 minutes of moderate physical activity 5 or more days per week.

HP
2010
30%

Physical Activity

22-02 Increase the proportion of adults who engage regularly, preferably daily, in moderate physical activity for at least 30 minutes per day.

Influenzae B (Invasive Infection) Cases

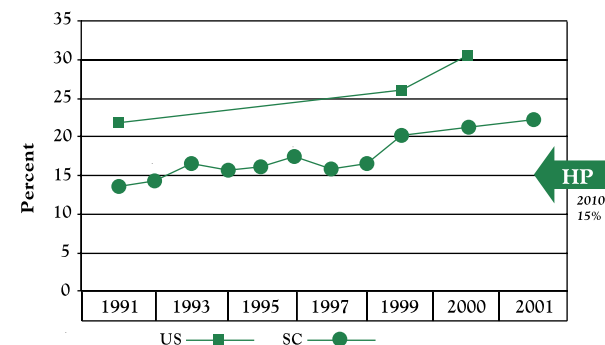


Data Source: SC Reportable Disease Surveillance System, SC DHEC

Physical Activity

22-07 Increase the proportion of adolescents who engage in vigorous physical activity that promotes cardiorespiratory fitness 3 or more days per week for 20 or more minutes per occasion.

Obese Adults* Age 20 and Older S.C. and U.S.



Data Source: SC BRFSS, US NHANES

*Obesity defined as a BMI of 30² kg/m² or more

NOTE: US data for 1991 is 1988-1994

HP
2010
15%

Overweight and Obesity

19-02 Reduce the proportion of adults who are obese.

Adult Participation in Regular Physical Activity, SC by Race

Year	White %	Black %
1995	17.4	18.9
1996	14.5	18.5
1997	18.5	16.0
1998	18.5	16.0
1999	NA	NA
2000	22.7	21.8
2001	33.9	23.3

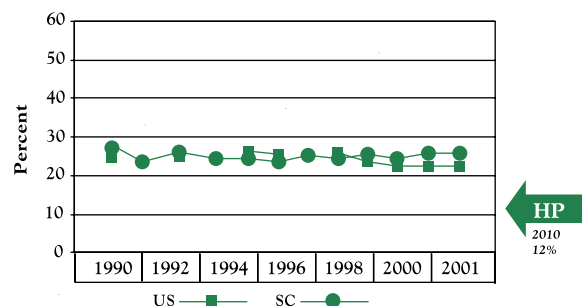
Adolescent Participation in Vigorous Physical Activity, SC by Race

Year	White %	Black %
1991	62.7	52.7
1992	NA	NA
1993	60.8	50.5
1994	NA	NA
1995	59.4	42.5
1996	NA	NA
1997	59.8	44.3
1998	NA	NA
1999	61.8	48.3
2000	NA	NA
2001	64.1	52.2

Obese Adults, SC by Race

Year	White %	Black %
1991	11.9	19.7
1992	13.3	19.9
1993	14.4	23.9
1994	11.6	27.1
1995	15	20.4
1996	13.9	27.7
1997	13.3	23
1998	16.2	31.3
1999	13.3	23
2000	18	34.6
2001	26.7	23.7

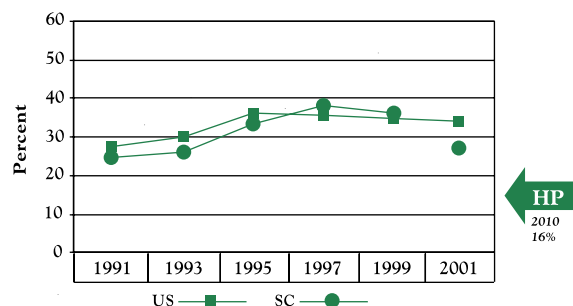
Current Cigarette Smoking* Among Adults, S.C. and U.S.



Data Source: SC BRFSS, US Age-adjusted NHIS

*Adults ages 18 years and older who smoked more than 100 cigarettes in their lifetime and smoked on some or all days in the past month.

Current Cigarette Smoking* Among Adolescents in Grades 9-12, S.C. and U.S.

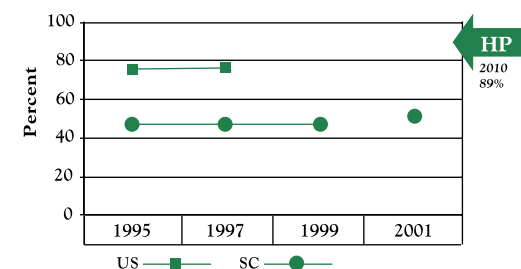


Data Source: YRBSS

*Adolescents who smoked one or more cigarettes in the past 30 days.

SC 2001 is unweighted

U.S. Alcohol & Drug-Free 12-17 Year Olds in Past 30 Days Compared to S.C. Public High School Students



Data Source: SC YRBSS, US SAMHSA

SC 2001 is unweighted

Tobacco Use

27-01a Reduce cigarette smoking by adults.

Tobacco Use

27-02b Reduce cigarette smoking by adolescents.

Substance Abuse

26-10a Increase the proportion of adolescents not using alcohol or any illicit drugs during the past 30 days.

Cigarette Smoking Among Adults, SC by Race

Year	White %	Black %
1991	25.6	16.7
1992	28.3	22.8
1993	25.5	20.8
1994	26	18.3
1995	25.5	19.8
1996	26.8	20.1
1997	24.9	19.4
1998	26.5	19.2
1999	25.5	18.3
2000	26.7	19.1
2001	26.7	23.7

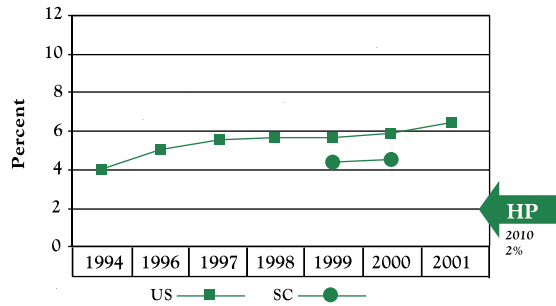
Cigarette Smoking Among Adolescents in Grades 9-12, SC by Race

Year	White %	Black %
1991	35.0	10.0
1992	NA	NA
1993	37.3	10.8
1994	NA	NA
1995	42.0	19.0
1996	NA	NA
1997	47.2	28.4
1998	NA	NA
1999	45.9	22.8
2000	NA	NA
2001	34.7	16.5

Adolescents aged 12-17 Years Who Reported No Use of Alcohol or Illicit Drugs in Past 30 Days, SC by Race

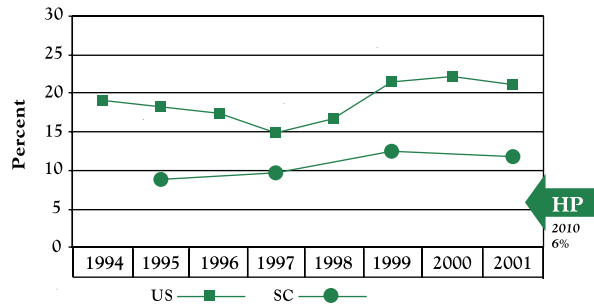
Year	White %	Black %
1994	NA	NA
1995	42.6	51.7
1996	NA	NA
1997	42.6	51.1
1998	NA	NA
1999	41.3	53.9
2000	NA	NA
2001	48.2	56.3

Proportion of Adults Using Illicit Drugs in Past 30 Days, S.C. and U.S.



Data Source: SAMHSA

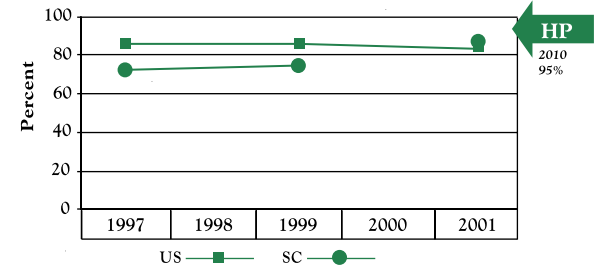
Proportion of Adults Binge Drinking, S.C. and U.S.*



Data Source: SC BRFSS, US SAMHSA

*Adults aged 18 years and older who reported having 5 or more drinks on an occasion, one or more times in the past month.

Adolescents in Grades 9-12 Who are Not Sexually Active or Sexually Active and Used Condoms, S.C. and U.S.



Data Source: YRBSS

SC 2001 is unweighted

Substance Abuse

26-10c Reduce the proportion of adults using illicit drugs during the past 30 days. South Carolina data by race not available.

Substance Abuse

26-11c Reduce the proportion of adults engaging in binge drinking of alcoholic beverages during the past month.

Responsible Sexual Behavior

25-11 Increase the proportion of adolescents who abstain from sexual intercourse or use condoms if currently sexually active.

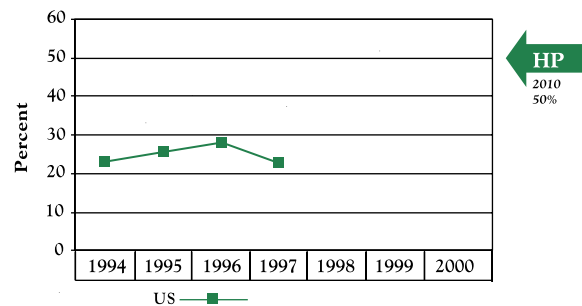
Adults Who Reported Binge Drinking in Past 30 Days, SC by Race

Year	White %	Black %
1994	NA	NA
1995	9.8	7.8
1996	NA	NA
1997	11.2	13.4
1998	NA	NA
1999	13.4	8.6
2000	NA	NA
2001	13.1	9.5

Adolescents in Grades 9-12 Who are Not Sexually Active or Sexually Active and Used Condoms, SC by Race

Year	White %	Black %
1997	79.6	70.4
1998	NA	NA
1999	80.6	72.8
2000	NA	NA
2001	86.5	85.9

Adults With Recognized Depression* Who Received Treatment**, U.S.



Data Source: US NHSDA

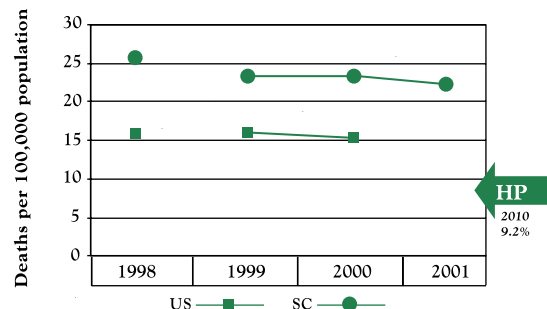
* Depression is defined as major depressive episode in the past year.

** Treatment is defined as treatment in the past year for psychological problems or emotional difficulties at a mental health clinic or by a mental health professional on an outpatient basis or treatment for psychological or emotional difficulties at a hospital overnight or longer.

Mental Health

18-09b Increase the proportion of adults with recognized depression who receive treatment. South Carolina data not available.

Motor Vehicle Age-Adjusted Mortality Rates, S.C. and U.S.



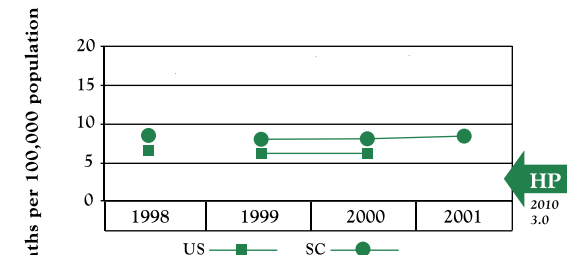
Data Source: SC Vital Records, US NCHS

Years 1999+ used ICD-10

Injury and Violence

15-15a Reduce deaths caused by motor vehicles.

Homicide Age-Adjusted Mortality Rates, S.C. and U.S.



Data Source: SC Vital Records, US NCHS

Years 1999+ used ICD-10

Injury and Violence

15-32 Reduce homicides.

Motor Vehicle Age-Adjusted Mortality Rates (per 100,000), SC by Race

Year	White	Black & Other
1998	24.1	29.3
1999	21.2	30.2
2000	22.1	27.6
2001	22.3	25.8

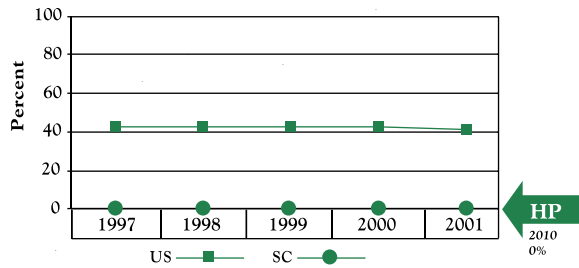
Note: For 1998, cause of death classification based on ICD-9; for 1999, cause of death classification based on ICD-10.

Homicide Age-Adjusted Mortality Rates (per 100,000), SC by Race

Year	White	Black & Other
1998	5.1	16.5
1999	4.7	15.0
2000	5.1	14.4
2001	5.5	15.8

Note: For 1998, cause of death classification based on ICD-9; for 1999, cause of death classification based on ICD-10.

Persons Exposed to Ozone Above EPA Standard, S.C. and U.S.

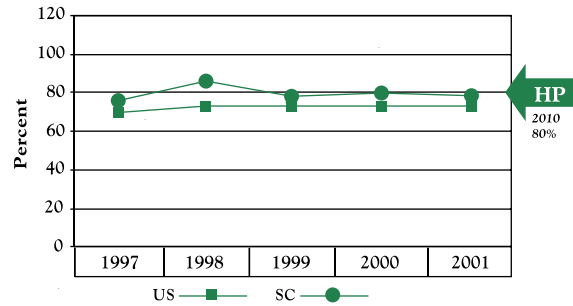


Data Source: SC DHEC EQC, US EPA

Environmental Quality

08-01a Reduce the proportion of persons exposed to air that does not meet the U.S. Environmental Protection Agency's health-based standards for ozone. South Carolina meets the health based standards for ozone.

Children Aged 19 to 35 Months Who Received all Recommended Vaccines*, S.C. and U.S.



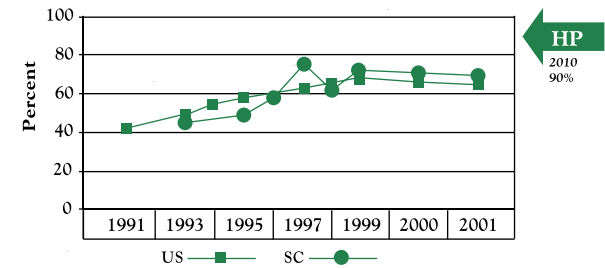
Data Source: NIS

*4 DTaP, 3 polio, 1MMR, 3 Hib, 3 Hep B

Immunization

14-24a Increase the proportion of young children who receive all vaccines that have been recommended for universal administration for at least 5 years.

Adults Aged 65 Years and Older Who Received Influenza Vaccine in the Past 12 Months, S.C. and U.S.



Data Source: SC BRFS, US NCHS

Immunization

14-29a Increase the proportion of non-institutionalized adults 65 years and older who are vaccinated annually against influenza.

Children Aged 19 to 35 months Who Received all Recommended Vaccines, SC by Race

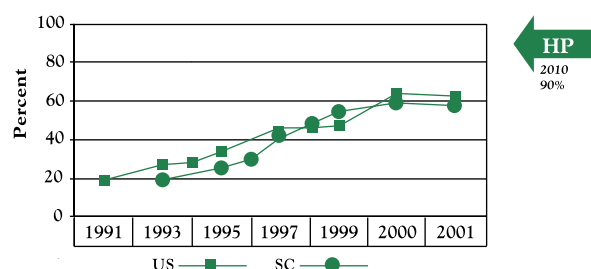
Year	White %	Black %
1997	70.1	80.3
1998	80.6	86.3
1999	81.4	73.2
2000	81.7	73.9
2001	81.9	78.3

Adults Aged 65 Years and Older Who Received Influenza Vaccine in the Past 12 Months, SC by Race

Year	White %	Black %
1993	50.9	37.8
1994	NA	NA
1995	56.3	34.2
1996	59.4	53.3
1997	75.3	71.5
1998	67.4	44.5
1999	73.2	58.3
2000	72.3	61.9
2001	68.7	56.7*

*Interpret with caution: Cell size less than 50.

Adults Aged 65 Years and Older Who Ever Received Pneumococcal Vaccine, S.C. and U.S.

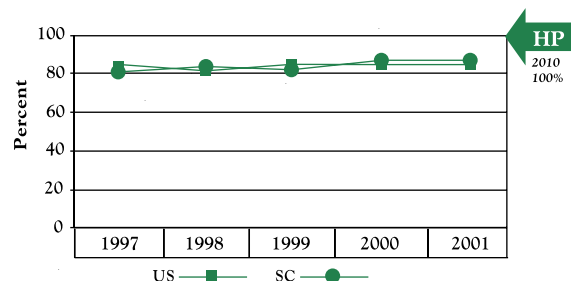


Data Source: SC BRFSS, US NCHS

Immunization

14-29b Increase the proportion of non-institutionalized adults 65 years old and older ever vaccinated against pneumococcal disease.

Persons Under Age 65 with Health Care Coverage, S.C. and U.S.



Data Source: CPS, US Census

Access to Health Care

01-01 Increase the proportion of persons with health insurance.

Pregnant Women who Began Prenatal Care in the First Trimester, S.C. and U.S.



Data Source: SC Vital Records, US NCHS

Access to Health Care

16-06a Increase the proportion of pregnant women who begin prenatal care in the first trimester of pregnancy.

Adults Aged 65 Years and Older Who Ever Received Pneumococcal Vaccine, SC by Race

Year	White %	Black %
1993	22.0	15.5
1994	NA	NA
1995	30.8	13.0
1996	34.3	26.5
1997	47.0	19.1
1998	56.3	27.3
1999	61.0	38.9
2000	63.9	44.4
2001	63.7	31.4*

*Interpret with caution: Cell size less than 50.

Pregnant Women who Began Prenatal Care in the First Trimester, SC by Race

Year	White %	Black %
1998	86.1	69.6
1999	85.0	69.4
2000	83.5	70.3
2001	83.8	69.0

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APPALACHIA I

Anderson, Oconee
2404 N. Main Street
Anderson, SC 29621
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FAX (864) 260-4855

APPALACHIA II

Greenville, Pickens
301 University Ridge Suite 5800
Greenville, SC 29601
(864) 241-1090
FAX (864) 241-1092

APPALACHIA III

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Spartanburg, SC 29303-2712
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FAX (864) 596-2136

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PO Box 100
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FAX (803) 285-5594
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Lancaster, SC 29720

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State Park, SC 29147
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FAX (803) 896-0617

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Burton, SC 29906
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FAX (843) 846-0604

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FAX (803) 641-7675

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Florence, SC 29506
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FAX (843) 661-4858

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FAX (803) 773-6366

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Charleston, SC 29405
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FAX (843) 744-5847

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Columbia, SC 29201
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FAX (803) 898-3913

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Myrtle Beach, SC 29577
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FAX (843) 626-2381

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 For more information on the contents of this publication, contact the Division of Media Relations at (803) 898-3886.



More than a century old, the practice of public health has provided for the needs of all the state's families, both rural and urban. In the same tradition as Public Health Nurse Rosa Clark, pictured above, public health nurses still make house calls to families to discuss health concerns such as prenatal care, infant care, nutrition, and sanitation to prevent the spread of infectious diseases.

Photo by E.S. "Sinky" Powell

About the design

Healthy People Living in Healthy Communities was designed by SC DHEC's Art Department. The software used for this book included: Adobe InDesign 2.0, Adobe Illustrator 10, and Adobe Photoshop 7.0. All of this software was used on an Apple Power Mac G4.

The green color used throughout the book is Pantone 348, SC DHEC's official color. The font used is Omni. This font comes in four different weights: Regular, Italic, Bold, and Bold Italic.

The cover is printed in full color on Mohawk Satin 2.0 Radiant White 100 Cover. The inside pages are printed in two colors, black and Pantone 348, on Mohawk Satin 2.0 Radiant White 70 Text. Both of these are made from 30% recycled paper.

About the photographs

The photographs in this report were taken by past and present photographers of SC DHEC's Photography Department. The images illustrate South Carolina scenes and people from the mountains, the Midlands, and the coastal areas.

The photographers used Nikon N90s and Minolta 9xi camera bodies with several corresponding lenses. They used Kodak Portra 400NC and 160VC Professional Film, which was developed on an AGFA FP1-72 film processor and printed on a Fuji PP720w/SFA-232 minilab.

The images were then scanned using a Nikon Coolscan 8000 ED scanner and imported into Adobe Photoshop 7.0 for editing. The photographers work on an Apple Power Mac G4 and a Dell Intel Pentium III.



We promote and protect the health of the
public and the environment

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

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